

## DOCUMENT1 RESUME

ED 352 178

PS 020 975

TITLE Hearing on AIDS: Threat to the Developing World's Children. Hearing before the Select Committee on Hunger. House of Representatives, One Hundred Second Congress, First Session.

INSTITUTION Congress of the U.S., Washington, DC. House Select Committee on Hunger.

REPORT NO ISBN-0-16-036853-7

PUB DATE 13 Jun 91

NOTE 91p.; Serial No. 102-6.

AVAILABLE FROM U.S. Government Printing Office, Superintendent of Documents, Congressional Sales Office, Washington, DC 20402 (Stock No. 552-070-11483-1, \$2.75).

FUB TYPE Legal/Legislative/Regulatory Materials (090)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS \*Acquired Immune Deficiency Syndrome; \*Child Health; \*Children; \*Developing Nations; Foreign Countries; Foreign Policy; \*Health Programs; Hearings; \*International Programs

IDENTIFIERS Africa (Sub Sahara); Agency for International Development; \*Congress 102nd; World Health Organization; World Vision (Relief Organization)

## ABSTRACT

Key leaders working for international, bilateral, and private organizations presented oral testimony and written statements on how developing countries can be assisted in coping with the AIDS crisis. Michael Merson of the World Health Organization, Richard Bissell of the United States Agency for International Development (USAID), and Milton Amayun of World Vision Relief and Development read prepared statements and answered questions about the extent of the AIDS epidemic, especially in sub-Saharan Africa, and about the efforts of their organizations to help developing nations deal with the problem. The participants also discussed United States policy alternatives that may assist these efforts. Four congressmen presented statements concerning pending legislation or asked questions concerning USAID. Supplementary material from USAID and UNICEF concerning AIDS and women and pediatric AIDS was also presented. (MDM)

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# HEARING ON AIDS: THREAT TO THE DEVELOPING WORLD'S CHILDREN

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## HEARING

BEFORE THE

## SELECT COMMITTEE ON HUNGER HOUSE OF REPRESENTATIVES

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

HEARING HELD IN WASHINGTON, DC, JUNE 13, 1991

Serial No. 102-6

Printed for the use of the Select Committee on Hunger



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1991

45-849

For sale by the U.S. Government Printing Office  
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402  
ISBN 0-16-036853-7

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## HEARING ON AIDS: THREAT TO THE DEVELOPING WORLD'S CHILDREN

THURSDAY, JUNE 13, 1991

HOUSE OF REPRESENTATIVES,  
SELECT COMMITTEE ON HUNGER,  
*Washington, D.C.*

The Select Committee met, pursuant to call, at 9:30 a.m., in Room 2253, Rayburn House Office Building, Hon. Tony P. Hall, [Chairman of the Committee] presiding.

Members present: Representatives Hall, Flake, Long, Emerson, Upton, and Gilchrest.

The CHAIRMAN. Thank you for all coming. We are very happy to have you here. Thank you, Dr. Merson, for being our first witness, on our first panel.

Today, the Select Committee takes a look at one of the most serious problems currently facing the developing world. It is a problem that jeopardizes the advances we have made on child survival in recent years, and the problem is the AIDS virus.

Yesterday, on the Floor of the House of Representatives, an amendment that I proposed, along with Mr. Emerson, to increase U.S. commitment to child survival, passed unanimously. The Select Committee on Hunger has worked as hard to help children as it has on any issue on development, and we've had some successes. In some areas, thanks to initiatives started here on the Select Committee on Hunger, the child survival rate is higher today than it was a decade ago.

AIDS threatens to roll back all the progress we've made, and make any future progress much more difficult. I understand in some areas of sub-Saharan Africa, AIDS could become the number one cause of death among children under five.

According to the Agency for International Development, AIDS threatens to reverse the hard-won gains made during the 1980s in promoting health and child survival.

Poor countries, and I have seen this many times, can't provide decent health care to their children, and now they face the enormous challenge of finding ways to respond to the AIDS crisis.

They face two immediate problems, providing for orphan children whose parents die from AIDS and caring humanely for children affected with HIV. At the same time, these countries also have to find ways to improve and extend primary health care services for all children and their mothers.

Today, the Committee will hear from key international leaders working for international, bilateral, and private voluntary organi-

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zations, in the struggle to help developing countries cope with the AIDS crisis. I hope that the Hunger Committee will hear some hopeful news about what can be done to respond to these threats to the Third World's children.

Now, I would like to ask Mr. Emerson if he has a statement, or anything he'd like to say.

Mr. EMERSON. Mr. Chairman, I associate myself heartily with your remarks, and ask permission to submit my statement, my prepared statement, for the record. Thank you.

The CHAIRMAN. OK. Without objection, and I don't think there is going to be an objection, we'll accept it.

Mr. EMERSON. Thank you.

[The prepared statement of Mr. Bill Emerson appears at the conclusion of the hearing, see p. 47.]

The CHAIRMAN. We are very privileged to have Dr. Michael Merson, and all three of the witnesses that are going to testify today. Dr. Merson came in to brief me a few months ago, about this problem, and it was alarming to me as to what I heard about what we were doing in child survival and trying to reduce infant mortality rates. We must relate these things together because it doesn't do us any good to fight infant mortality rates if, in fact, AIDS is going to take even more of the lives.

It was alarming, and I guess what we really need to do is not only educate ourselves, but the world really needs to be better educated about what AIDS is going to do on the potential—the tremendous potential of what it is going to mean to this world if we don't fight this whole disease much better than what we are doing.

So, Dr. Merson, we are very glad to have you here, and proceed with your testimony if you would like.

#### STATEMENT OF DR. MICHAEL MERSON, DIRECTOR, GLOBAL PROGRAM ON AIDS, WORLD HEALTH ORGANIZATION

Dr. MERSON. Thank you, Mr. Chairman, Members of the Committee.

Mr. Chairman, as you have said, over the past several decades, significant progress has been achieved by child survival programs. These successes were so great that last year there was a meeting in New York of heads of state called The World Summit for Children, which provided an opportunity for these heads of state to make a commitment at the highest political level to improve child health throughout the world.

Perhaps one of the most important goals set at that meeting—and I quote “was the reduction by the year 2000 of infant and under-five child mortality by one-third or to 50-to-70 per 1000 live births, respectively, whichever is less”. Unfortunately, the emergence of AIDS during the 1980s as a major and increasing cause of disease and death in infants and children has the potential to negate most, if not all, of the advances made so far in child survival and prevent further advances in the near future.

I would like to summarize just briefly the impact of the pandemic in children, focusing especially in sub-Saharan Africa.

During the latter half of the 1980s, heterosexual transmission has increasingly become the primary mode of the transmission of

AIDS globally. In sub-Saharan Africa, HIV transmission has always been predominantly heterosexual, but in developed countries and in most of Latin America during the early 1980s, males were predominantly infected via sex with other men, and by sharing drug injecting equipment.

As of mid-1991, the male-to-female ratio of new infections is increasingly drawing closer to one-to-one in all regions of the world, and WHO estimates that by the mid-1990s, the male-to-female ratio of new HIV infections will, on a global basis, be almost one—that is, one male to one female.

Since one in three to four infants born to HIV-infected women are HIV-infected, the increasing numbers of HIV-infected women, most of whom are in the childbearing age group, brings an increasing number of pediatric AIDS. Mr. Chairman, to put it very simply, the more women who are infected, the more children who will be born infected. And if they are not infected, they are likely to be orphaned because their parents will soon die of AIDS after they are born.

As of mid-1991, WHO estimates that from 5-6 million men have been infected with HIV, and 3-4 million women. These 3-4 million women have borne 1 million HIV-infected children already, over a half a million of whom have developed AIDS or have died.

About four out of five children born HIV-infected develop AIDS by age five. In addition to these HIV-infected children, almost 2 million uninfected children have been born, and they represent the beginning of the growing numbers of AIDS orphans. To date, about 90 percent of HIV-infected children and AIDS orphans have been in sub-Saharan Africa.

Estimates of disease-specific mortality in children can be used to compare AIDS with other causes of death in children. From these initial estimates, especially in countries with a lot of AIDS, it is apparent that within the next few years, AIDS will cause more deaths in children than either malaria or measles.

Now, long-term projections—not just the next few years, but long-term projections—are always difficult to make because of many important biological and behavioral variables, however, all of the current data and all of the available models project substantial increases in the total numbers of men, women and children who will become infected, progress to AIDS, and die.

By the year 2000, our most recent projection is the following. There will be a cumulative total of 25-30 million HIV-infected adults, 5-10 million infected children, and 10-15 million children below 15 years of age orphaned as a result of the death of their mothers due to AIDS.

Using a demographic projection model developed by the World Bank, we have tried to look at the year 2010 in a hypothetical sub-Saharan African country with a high AIDS prevalence. Infant mortality rates in such a country in the absence of AIDS would have been expected to drop from 100 to 60 per 1000 live births between 1990 and the year 2010. Instead, infant mortality rates will remain unchanged.

Similarly, as a result of AIDS, there will be no decline in high prevalence countries, in the probability of dying by age five. It is, in fact, expected to also remain about the same.

I have spoken mostly about Africa, but all the evidence before us today is that unless there is the highest commitment given now to AIDS prevention and control in Asia and Latin America, this picture I have presented to you for Africa will be the same in the rest of the world, but just lagging by five to ten years.

Therefore, data on the prevalence of HIV-infected women and children, although limited, need to be periodically revised to be sure of their accuracy. It is undeniably clear that AIDS in women and children has become one of the major challenges to public health, health care, and social support systems throughout the world. And it is also abundantly clear that child survival programs will need to actively address the potential impact of this pandemic if any—and I repeat, Mr. Chairman—if any significant reductions in infant and child mortality rates are to be achieved by the end of this century and the early decades of the next century.

Finally, Mr. Chairman, in what might be done about this problem, first, we must recognize that AIDS in children is directly a result of AIDS in women, and that the vast, vast majority of infections in women are due to sexual transmission. Therefore, to prevent HIV in children, we have to prevent HIV in women, which means preventing sexual transmission of HIV primarily through promoting safer sexual behavior, which means implementing information activities to the general population, youth, and to persons practicing high-risk behavior, and procuring and distributing condoms and, secondly, providing early diagnosis and treatment of sexually transmitted diseases since persons who have another sexually transmitted disease are at risk of transmitting and becoming infected with the HIV virus.

Just about every developing country in the world today has a national AIDS control program. These programs must be seen and heavily supported as part of child survival. There is a serious deficiency in resources available today, for AIDS prevention and control activities. And I would say that unless these countries receive the support for their programs, all the investment in child survival may not nearly give us anywhere near what might otherwise be achieved. Thank you, Mr. Chairman.

[The prepared statement of Dr. Michael Merson appears at the conclusion of the hearing, see p. 70.]

The CHAIRMAN. Thank you, Dr. Merson, I appreciate very much your testimony. Those are incredible, incredible statistics when you say that by the year 2000, there will be 25-30 million HIV-infected adults, from 5-10 million infected children and, in addition, 10-15 million children fifteen years of age, who will have been orphaned as a result of the deaths of their mothers due to AIDS.

Why is the number—the tremendous number of incidents—in sub-Saharan Africa?

Dr. MERSON. Well, I think this is a not totally understood phenomenon, but it is clear that the pandemic began in the mid-1970s in Africa, perhaps also in the Caribbean, perhaps also in North America. We don't really know the reasons why it started there. There are a lot of theories, but we do know that the retrovirus, that is the type of virus that the AIDS virus is, has been around for many years.



It could have been a mutation from an animal virus, we really don't know, but it is clear that there were certain phenomena—demographic and social phenomena in Africa which occurred in the mid-1970s and late 1970s, in particular urbanization, where many men in particular came to urban areas for work, and many commercial sex workers, prostitutes, also came to these urban areas, and this set up a chance for transmission. And once there was a chance for a lot of transmission, the virus has been able to spread very rapidly, especially in central and east Africa, and especially in urban areas.

There's a lot of talk about this. I'm not sure it helps us in deciding where we go now. It is a given fact that 6 million Africans are infected, adults. It is a given fact that there are rates of transmission today in Asia, some parts of Asia, which are exactly or even greater in their velocity than we saw in Africa in the early 1980s.

And, so, while one could speculate on the reasons why it started there, I think our efforts need to be really focused on the fact that it is well established in Africa, spreading now from east and central Africa to western Africa, and rising at rates similar to what we saw in Africa in the 1980s, in other parts of the world today.

I've mentioned Asia, I would also mention the Caribbean, I would also mention certain parts of South America.

The CHAIRMAN. Heterosexual sex is causing what percentage of it?

Dr. MERSON. Well, it's interesting to trace the phenomenon. In 1985, about half the cases worldwide were due to heterosexual transmission. Today, it is about two-thirds, and we estimate it will be close to 80-90 percent by the year 2000, the remainder being primarily perinatal transmission—that is, transmission from mother to children, and some homosexual transmission. But I think, from the public health standpoint, AIDS should be seen as a sexually transmitted disease and primarily a heterosexually transmitted disease. In fact, in some parts of Africa today, where there is almost exclusive heterosexual transmission, the rates in women are higher than in men, for reasons that are not fully understood, but where you have a situation where spread is primarily heterosexual, it appears that men transmit the virus to women a little bit more efficiently than women transmit it to men. This is important because the more women that are infected, the more children that will be infected.

The CHAIRMAN. Now, how do WHO and UNICEF, collaborate? How do you work together on working with the mothers and children?

Dr. MERSON. All national AIDS programs to speak of, I think we could say, have educational efforts focusing on the general population, focusing on youth in and out of schools, and focusing on persons with high-risk behavior.

WHO is fully involved in this area, as well as in many other aspects of programs—surveillance activities, for example, to determine the extent of the problem; we are involved with program management activities; we are involved with blood screening; we're involved with counseling. Very similar to AID, when we are involved in a country, we are involved in a very broad way in most cases, primarily focusing on sexual transmission.

UNICEF's involvement in AIDS has been a little less—probably more than a little less—has been considerably less at the present time. They primarily focus their activities in African countries, and primarily school education has been their major focus. In maybe 10–15 African countries, they have made important contributions directed at, in particular, youth and curriculum.

The feeling we have is that given the extent of the pandemic, it is important for all the U.N. agencies involved in development, in social issues, and in health issues, to make AIDS a top commitment for their activities. The extent of the pandemic and where it is going demands all of the U.N. system, and the bilateral system, I might add, to really see the potential seriousness and the action that is required.

The CHAIRMAN. How does WHO collaborate with AID?

Dr. MERSON. Our relationship and collaboration with AID is on many fronts. AID has been one of the major, perhaps the major, bilateral agency involved in AIDS prevention and control.

They have focused most of their efforts in prevention and very much involved especially in the promotion of use of condoms. And we have tried, in many countries, to work with them, their missions and in their major projects, in being sure that their strengths and our strengths are used in a compatible way.

AID, for example, has taken the lead in certain areas, for example, in looking at intervention projects to see how to reach certain groups like prostitutes and their clients. AID has done some important work on looking at simplifying diagnostic tests.

And what we have tried to do—and this would go for the whole U.N. system as well as the other bilaterals—we were given by the United Nations the responsibility for providing leadership in the pandemic, and what we try to do is to use the respective strengths of our various agencies.

The CHAIRMAN. Questions of Dr. Merson? Mr. Emerson?

Mr. EMERSON. Thank you, Mr. Chairman.

Dr. Merson, I would like to ask you at least one question here. Most of the statistics seem to be based on urban populations. How extensive is the spread of AIDS in rural communities of the developing world?

Dr. MERSON. I think that if we start with Africa, it is fair to say that the pandemic in Africa has started as an urban problem. As I've explained already, this had to do very much with migration of workers to urban areas but, in the last two to three years, we have seen a considerable shift and spread from urban areas to rural areas.

Now, the rates in rural areas, for the most part, are still not quite as high as in urban areas in Africa. There are some exceptions like the Ivory Coast where the rates in rural areas seem to be quite similar to those in urban areas, running between 15 and 20 percent of the adult population.

I, quickly, though, would mention that the one country in Asia that has the most serious AIDS problem now is Thailand. We have seen recent data this week from the Prime Minister's office, which indicates that it will be possible that in Thailand there will be 6.7 million Thais infected with the HIV virus by the year 2000, in a population of only 50 million, and that the infection rate right now

in rural Thailand, be it in the north or the south, is 3 to 5 percent of that rural population, of the general population.

So, while it is true that—in fact, it was Bangkok where probably the pandemic started—so, while it is true that it tends to start in urban areas in most countries, it is quickly spreading to rural areas in most countries.

Mr. EMERSON. While I am sure that in this subject area, as in so many others, one of the problems that we face is the lack of resources to adequately address the problem, that problem aside, from where you sit at the WHO, do you believe that governments and other entities are cooperating adequately to really try to get a handle on this, or are there governmental impediments?

Dr. MERSON. To be frank, Mr. Emerson, we are concerned that the level of noise has not gotten loud enough yet, that there has been—in too many countries, too much time wasted or lost, by waiting for cases to occur before the problem has been addressed.

One of the biggest problems we have with this disease is that the time between infection and disease is long. It takes ten years for 50 percent of those who are infected to become ill and, when they become ill, they become ill in small numbers. So, you don't feel the impact until you have large numbers of cases.

The United States of America, frankly, sir, had a similar situation in the 1980s. If we wait until one has large numbers of cases for governments to act, it is too late, frankly. And our feeling is that it is in the low prevalence countries where today there is still a chance, especially in Asia and Latin America, where we really need to motivate heads of state, to make them appreciate what has happened in other countries of the world that have waited too long. I think the data I have presented from Africa showing us that enormous gains in child survival are essentially going to be lost because of that wait. And I feel that we all, in the development community, must be willing to talk openly about AIDS, to talk openly about sex, to talk openly about all these issues which traditionally people have not found easy to talk about in most societies. And it's in the countries that have talked openly, it's in the countries where community groups and non-governmental organizations have been mobilized and where we have acted early, that the most impact has been achieved.

The CHAIRMAN. How, if I may interrupt Mr. Emerson with a question or two—how long after you are infected with HIV—how long did you say any kind of signs could show up? It could be ten years? Did you say that?

Dr. MERSON. Yes. Most people who are—most meaning between 50–60 percent of those who are infected—develop an acute illness within the first three months. This illness is often passed on as a flu-like illness and isn't recognized as being HIV infection.

Then the persons normally feel fine. And it takes ten years for 50 percent of persons who are infected to start to become ill with what we call AIDS. It probably takes 20 years—we don't know this—but if we assume that everyone eventually, with an HIV infection, develop AIDS, it might take 15–20 years before that occurs.

Now, let me also say here that one phenomenon that hasn't gotten enough attention is that most—in the developing world, in contrast—well, it's similar to certain parts of the United States—

persons with AIDS who die, die from usually an infectious disease. And what they usually die from in the developing world is tuberculosis. And if you travel around Africa today, in hospital after hospital, somewhere around 50 percent of persons with AIDS have active tuberculosis. And what we have now in the developing world is a silent, growing, very worrisome epidemic of tuberculosis, which is coming on the back of the AIDS pandemic.

Now, you must remember that persons with tuberculosis can transmit that tuberculosis to persons who are HIV-negative very easily because it is a droplet infection. So, just to make the point that during this period while people are getting sick, that AIDS has impact on other diseases because, as the immune-response decreases, the body becomes unable to handle other infections very well, like tuberculosis.

The CHAIRMAN. You mentioned Thailand, which is known as a country that has a tremendous amount of prostitution, but I thought that they had a program in Thailand, headed by Mr. Michai, that has been fairly successful over the past few years.

Dr. MERSON. I think Thailand has been a country that has now been willing to speak out openly, with Mr. Michai now in the Prime Minister's office, that has been willing to tell the world its problem, as Uganda did in Africa, and not be afraid to talk about it. I think, Mr. Chairman, frankly, probably it started a little too late, and what we are seeing now probably is a result of starting a little too late.

Mr. Michai, who I saw last week, is hoping that with the enormous efforts being made by Thailand now, that 6.7 million projection for the year 2000 won't happen, it will be closer to 4 million infections.

I think we're at a critical point in Thailand now, and Mr. Michai knows that, and is doing everything he can to work with the government and the NGO community, to try not to let this get much further.

I will tell you, though, that this is complex. He told us one figure which I found very interesting, and that is that much fewer Thai women are going into prostitution now, as a result of AIDS, that something like in 1988, about 14 percent of the prostitutes in Thailand were from Burma. That's now increased to 24 percent.

The point I am making is that no country stands alone in the world, and what we are seeing in Thailand, maybe we are seeing a very good response now from that government, but you have governments around Thailand, like Burma, like Laos, like Vietnam, like India, where we still are not seeing what we feel is required.

I particularly would focus on India. If I may, sir, let me say that there are close to a billion people living in India. This is two and a half times the size and population of Africa, of all of sub-Saharan Africa, of the 44 countries in sub-Saharan Africa. There are groups of prostitutes in India that have infection rates of 70 percent, in Bombay, in Madras. IV drug use is increasing in India, I might also add in Burma and in Thailand. As the price of heroin has gone up and the quality has gone down, what has been a sniffing society has become an IV injecting society.

Now, not many infections are transmitted that way, but it establishes the virus in a community which is then easily transmitted

sexually. My point being that while Thailand has made a substantial—now, a bit late, but a very substantial—response, the countries around Thailand have not, and this is one of the things—remember, two-thirds of the world's population lives in Asia.

The CHAIRMAN. Questions of Dr. Merson, Mr. Upton?

Mr. UPTON. Thank you, Dr. Merson, for your very good testimony, and very alarming, certainly, as well. I do have a couple of questions, probably more focusing on what each individual country is doing in terms of their awareness levels. Obviously, you must—I know that you have access to information by each country in terms of the rate of incidence of AIDS, and I wonder if you have at all tied that, or tried to correlate it, with what each individual country is doing to raise the level of awareness and, in essence, getting a report card, and I wondered if you might be able to comment on some of the different types of programs that countries are, indeed, offering and how they have been successful, and maybe if you all are helping to try and interweave the successes and, obviously, dampen failures.

Dr. MERSON. We don't have that much experience yet. National AIDS programs have been around about three to four years, but your question is a very important one, what have we learned.

First of all, like with any health behavior, it is essential to have awareness and knowledge in order to get behavior change. And I think especially in Africa today, there is, in some countries, as high as 90 percent of persons have heard of AIDS, and even know how it is transmitted.

I think in many African countries there is very high awareness and knowledge today. Now, that is not the case——

Mr. UPTON. Would that rank similar to here, then, in the United States, about 90 percent, or 95 percent?

Dr. MERSON. Yes. And I think probably in some African countries there is greater knowledge of how it is transmitted than in the United States or, more importantly, how it is not transmitted. You know, in this country, as I understand, there is still a considerable portion of the population that worry about mosquitoes and toilet seats and things like this which, obviously, have nothing to do with the transmission of the virus.

I think, though, that behavior change, unfortunately, especially in the area of sexual behavior, which is a very intimate and private affair, it's not easy to achieve. You know, it's probably more difficult than smoking or other kinds of behavior patterns where we do have experience.

The issue that we have learned, I think, is that in order to change behavior, it's clear that one thing that works is when you see a lot of people dying. That is, for example, in Uganda now, which is the extreme, where we have now learned that the government is preparing every family in Uganda to have one person with AIDS by the year 2000. That's a very telling statistic.

Now, the question is, do you have to wait until there are people dying around you before a population will change its sexual behavior? I mean, the gay community in the United States, you could argue, didn't really change its behavior until there were a lot of people dying.

I think what we have learned in that regard is, first, it's important to have a comprehensive program. That means dealing with the general public first, getting the message out to the general public. And then, second, targeting your efforts. It's clear that if you want to reach persons who practice high risk behavior such as prostitutes and their clients—not enough emphasis is given to the clients—you can't just educate prostitutes. If the client offers the Indian prostitute \$5 without a condom instead of \$1 with a condom, probably that prostitute will take the \$5 if that's what she needs to feed her children. I think that's why the clients need to be educated as much as the prostitutes. So, you need a large mass media, but you also need more focal activities on persons practicing high risk behavior, and then at youth.

There is a growing body of evidence that it is important to reach youth, but how to reach youth is debatable. Should it be in school or outside of school? In most societies, it appears to be more effective outside of schools, using forums, of course—Boy Scouts, if I can give an example from this country—or other kinds of community groups rather than in the school system. It seems to us the school system has not been as effective as the out-of-school system.

Then I think we need the private sector in this effort. The best example is the social marketing of condoms, where we have seen mostly, I think, in AID, I would say, Mr. Chairman, to your question earlier, has taken the lead in some of the social marketing projects that AID has funded initially in the family planning area, now in the AIDS area, where we have seen that through creative advertising one can increase condom use.

It had been said when the pandemic started that you could not get an African man to use a condom. Well, the experiences I hear, that's just not true. In Zaire it was possible to get 8 million condoms to be purchased in a period of three years.

So, I think that what we need is a comprehensive effort that has some broad-based educational activities and some focused activities that would take into account the social and cultural characteristics of the country, and that usually requires some operational research to learn more about those practices.

We have learned an enormous amount about sexual practices in Africa, in Asia, in Latin America. Who would have thought openly we could discuss that in some Latin American countries 25 percent of men have sex with men. Many of these men are married. Okay. You might call them bisexuals. We don't like that term, but we can call them bisexuals. And I think that in order to mount effective programs in countries, we need to know a lot about the basic sexual behavior in countries.

So, in other words, one needs a broad educational approach, one needs to use the private sector, and one needs the public sector, one needs to have also some background operational research to tell us how to mount the educational programs most effectively.

Mr. UPTON. When you talk about Uganda preparing each family to lose one person in their family, obviously, many of those people are going to be the parents. What type of steps throughout particularly sub-Saharan Africa are we doing with all the orphans that are there?



Dr. MERSON. There are many groups working with orphans, but the problem—already we have 2 million and, as I've said, we may have between 10 and 15 million by the year 2000. The dilemma we face here is that the African society except, of course, in war times, has not had a lot of experience with orphans. The extended family concept has been one of the things that has held African society together. And we're still learning how to cope with this.

There have been various ideas proposed. There has even been the idea of orphanages but, frankly, we are not very keen on orphanages in the African setting. I think most people feel today that one has to find a home for these orphans. In fact, there's a special meeting going on right today—a workshop at the International AIDS Conference—to discuss this.

So, what we are trying to do is to look at some innovative approaches. Unfortunately, at the moment, I can't really give you specific examples of what approach has worked better than others, but I think the general feeling is that one should not create separate buildings for these orphans, but to try to find a place for them in families so they can get some support.

The only thing I would say to you, sir, is that if you were to travel around southern Uganda today, you would see villages with nothing but elderly grandparents and their young children, because the adults have died of AIDS. It's a very sad sight to see.

Mr. UPTON. I appreciate your answers, thank you.

The CHAIRMAN. Mr. Flake?

Mr. FLAKE. Thank you very much, Mr. Chairman.

Dr. Merson, as you talk about the problem, it seems to me that I see coming from your statements, three basic approaches to trying to solve it, and that is research, education and treatment, and I'd see three focuses.

The question I have is, has there been any determination of the cost either on the basis of what it would cost on a regional basis either in the African area, in Asia, Latin America, or on a global basis, of what is the kind of dollar impact we would be anticipating in order to try to solve the problem?

Dr. MERSON. We are asking also that question, sir. We can tell you that the amount of funds going in now for international AIDS activities, external assistance funds, let us say, on an annual basis, can't be more than \$150 to \$200 million, from all sources of funds. I am sure the State of New York, and possibly the city of Washington, spends more money than that on AIDS. I don't know about the city of Washington, so if I'm wrong I stand corrected, but that is a minuscule sum of money.

We have been unable to, so far, raise the resources from the aid community for this effort. Part of the reason, I think, is that it has been presented primarily as a health problem, but I think it is clear that it is not just a health problem. It is a social problem, and it is an economic problem.

We have no doubt—not just the orphans—but we have no doubt that if you have a third of the elite, or a third of the urban population of men and women infected in African countries, that is going to have major impact on the economy over the next decade, and the same thing is going to happen in Asia.

And, so, I think that there's no question that if we can present and demonstrate to the donor community the potential socioeconomic impact of this epidemic, perhaps we can raise the additional funds, but there is nowhere near the resources needed for this problem.

Now, what is the ultimate need? What are the total resources that are required? We are currently doing an analysis, we hope with assistance from the World Bank, to get that answer. So, I hesitate to give a number now, but I can tell you that what is needed is available, I am sure, when you realize that \$54 billion was spent on a recent conflict in the Middle East—I'm not passing judgment on that, I'm just stating that \$54 billion was spent for that. Maybe if we could declare a war on AIDS, we could generate that money for AIDS.

Mr. FLAKE. You have displayed the health, a presumption of health, but also the presumption of it being somebody else's problem. It is an urban problem. It's African problem, an Asian problem, a Latin American problem. So, how do we get to the point where we begin to educate people to an understanding that the AIDS crisis has no borders, it has no boundaries. There is nothing that keeps it in any particular place, but because we are a society of transient people, people move beyond borders, that in reality what can be a serious crisis in one nation one day, can be a crisis in another the next. What are we doing, if anything, to try to get a global sense of the reality of the problem?

Dr. MERSON. Your question very nicely states what we would see are the two major reasons, from a sociological standpoint, why this pandemic didn't get the response, has not gotten the response it needs. One has been denial, and two has been stigmatization.

Somehow, for reasons I'm sure are well understood by some, AIDS is seen as a stigma, and it's much better to think of the other group that has AIDS. In Latin America, in particular, there is still this idea that it's "them" that have AIDS, the gays, or the druggies, they'll have it, we'll never have it, and I think that is terrible. That is both the denial and the stigmatization, we must fight that. And as I said earlier, this creates—this requires that all of us are willing and able to speak openly about AIDS, to see it, as you have eloquently stated, as a disease with no borders either from a country standpoint, or a population standpoint, that anyone is vulnerable.

I have just come down from New York yesterday. In the city of New York, which is, you know, in this country, in certain parts now, the rates in women equal the rates in men, and I think that in this country as well, heterosexual transmission is slowly, but steadily, increasing and, in certain areas, it is increasing more than slowly.

And, so, I think that it requires, if you like, a change in attitude about AIDS. We must stop fighting people with AIDS and fight AIDS. I think this is the mentality and the mind frame that all of us must be able to have in every country of the world.

Mr. FLAKE. I represent New York. You keep talking and I'm going to go to Dayton, Ohio. [Laughter.]

Dr. MERSON. I didn't know that, sir. I'm sorry.



Mr. FLAKE. All right. Last question. Basically, if you have been in New York and, of course, as you know, the last few days in particular, the papers have been talking about the growing crisis that relates to tuberculosis.

How critical is the problem? It is obviously AIDS-related. And what do we see in terms of projection not only in terms of New York—and I guess it's emerging in the same way in other cities and in other countries—what do you see in terms of what we thought was a disease that we had a pretty good handle on and had control of, that now is breaking out again, and what are the long-term potential consequences in terms of the way it's developing now?

Dr. MERSON. I was told—and I may not have the numbers exactly right—but that in adult men in New York City, I think between the age of 15 and 45, something like that—but we can get that exactly—but in a large range of adult men in New York City, AIDS is now the leading cause of death. And in women ages 20-29 in New York City, AIDS is the leading cause of death—a narrower range, but still the leading cause of death—in childbearing age, in the middle of the childbearing age, and also that tuberculosis rates were increasing markedly, and that is clearly directly a result of HIV infection and AIDS. That is the corollary, there should be no question about that from the epidemiological standpoint.

What we need is effective treatment programs. We must be able to deliver those drugs, and we must be able to try to have more effective therapy so that people will take these drugs.

It is our view in WHO that we need a worldwide major effort in tuberculosis right now, for the developed countries as well, of course, as for the developing countries. This disease should be back on the top of all our lists of priorities in terms of a killer of adults and a killer of children. There's no question about that in terms of the data that we have today. It is a major—it always has been, but it really is now a major health problem in the developing and the developed world, and the more AIDS we have, the more tuberculosis we're going to have, that's for sure.

Mr. FLAKE. Thank you very much, Dr. Merson. You've made me so nervous I'm throwing my pencil here. Thank you very much. I yield back the balance of my time.

The CHAIRMAN. Representative Long?

Ms. LONG. I don't have any questions because I just arrived, but I want to thank you for appearing here today, and thank you for your testimony.

The CHAIRMAN. Representative Gilchrest?

Mr. GILCHREST. Thank you, Mr. Chairman.

Dr. Merson, these may have been asked prior to my coming, but I am curious about some information. Do we have any idea as to the origin of AIDS? Is it something that has always been with us as a disease, but hasn't been worldwide? Is it some virus that mutated, changed, and has become a part of a nightmare that we're all sharing? And if it is a virus—my very limited knowledge of viruses—can it constantly mutate which might make it relatively difficult, if not impossible, to find a permanent cure for it?

Dr. MERSON. We know only this, that there is evidence that this particular virus was around in the 1950s. We have evidence that

similar viruses exist in other animal species, not the exact same but similar viruses. The exact origin we don't know. The exact origin. We also don't think, however, that that is very helpful in terms of where do we go from here because every country has the virus, I'm sure, and it doesn't help to focus on the origin. However, the question you raise about different strains is a very important one because the virus we're talking about is the HIV-1 as the primary virus for AIDS. However, HIV-1 is not the same in every country of the world, not every strain is the same. There are genetic differences. And even within us, if one is infected, the virus can change genetically even in a particular person.

This is very important for development of a vaccine because a vaccine that's made from a strain taken from the United States may not be useful in a vaccine used in Africa.

Mr. GILCHREST. This is nothing like where you develop a vaccine for polio, this is something totally different?

Dr. MERSON. We are looking now at this question. This is a major research issue. We are trying to collect strains. WHO has established a network trying to get strains from all over the world, giving them to the pharmaceutical industry and others working in vaccines, and the goal would be to see if we could make a vaccine that would produce an antibody response that would be broad enough to cover all the strain variations. This is a major area of research right now, to see whether we can make a vaccine that would overcome this genetic variation.

Let me quickly say for the record that there is another virus that causes AIDS, and that is called HIV-2. I think it's important to recognize that there is a second virus that causes AIDS. The main cause is HIV-1, but HIV-2 is increasing. It is now primarily in West Africa and in the Portuguese speaking Africa. It has recently come to India. There have been one or two infections in this country.

HIV-2 has a very similar disease to HIV-1, but from the standpoint of a vaccine, there is such a wide difference between HIV-1 and HIV-2 that one would probably have to have a vaccine that had two separate viruses in it, if one wanted to cover all the AIDS that could exist.

So, in summary, most AIDS is HIV-1, increasing amount of HIV-2, and we would like to try to find a vaccine that could produce a broad enough antibody response to protect against HIV-1 and HIV-2.

Mr. GILCHREST. Is there any particular reason—in New York, you say that tuberculosis is on the rise, and my understanding of AIDS is that it somehow breaks down the immune system's ability to respond. The immune system just stays in a hibernation type stage so that whenever you're exposed to certain diseases, the disease takes over.

In West Africa, with the HIV-2, is it the same type of thing happening in your body? It closes down the immune system?

Dr. MERSON. Yes. Most of the diseases we see because of AIDS, is a breakdown of the immune system, for HIV-1 or HIV-2. The reason why we see so much tuberculosis is very simple. Most of us including, I suspect, most of us in this room, have had tuberculosis infection as a child or as a young adult. Certainly, people living in the developing world, it's close to 90 to 100 percent. We get a minor

infection as a child. We handle that infection very well. We don't get sick. We mount an antibody response and we isolate this bacteria and it doesn't make us ill, but it's in our body.

Now, when our antibody response comes down, when our T-4 cell count comes down because of AIDS, that tubercular bacillus, that bacteria which has been sitting for 30, 40, 50 years, in very small numbers, not doing any harm to us, suddenly has a holiday and can just grow at any rate it wants. And this is why we can expect to see a lot of tuberculosis wherever we have AIDS, because so many persons in the developing world, and in especially the poorer parts of New York and other urban areas, have been infected with this bacteria and it's in our bodies. It just would never cause us any harm if our immune system didn't fall apart.

Mr. GILCHREST. So, then, tuberculosis is also common among AIDS patients in Africa?

Dr. MERSON. Fifty percent of AIDS patients in some countries have AIDS—50 percent of AIDS patients have tuberculosis.

Mr. GILCHREST. Is there a reason—and I could be wrong on this—that there appears to be more AIDS in Africa than there would be in Asia?

Dr. MERSON. There is today much more AIDS in Africa, but if I had an overhead I could project to you the year 2000 and the year 2010. As we move into the next century, there will be, we predict, much more AIDS in other parts of the world, like Asia, than Africa, because two-thirds of the world lives in Asia. And you can expect to have a lot more AIDS.

If we were sitting here in the year 2010 or the year 2000, we'd be very alarmed at the Asia situation. But, we need to be alarmed now of the Asia situation, and we need to get the resources and do the promotion that's necessary to get Asian countries today to put AIDS at the top of their political agenda, to mount programs to prevent AIDS. Because if we don't act now in Asia, we're going to have what you see in Africa now but much bigger, in the year 2000.

Could I just make one other comment, sir, which I think the Committee should understand about Africa and Asia. When AIDS came to Africa in the late 1970s, nobody knew what AIDS was. AIDS was not discovered as a disease until 1981. We didn't discover the virus until 1983. We didn't have an antibody test to detect a person who was infected until 1985. By 1985, many, many people were infected, in this country, in the Caribbean, and in Africa, but very few people were infected in Asia or Latin America.

My point is that Asia and Latin America and the Middle East have a chance that Africa didn't have, and that we didn't have, and that the gay population in this country didn't have. We know everything we need to know about that virus. We know how it is transmitted, and we know how to stop that transmission, and so if we have a problem in Asia and Latin America and the Middle East, it will be our own fault because we have a chance—if we can get the resources and mobilize political leaders and health leaders, we can prevent the tragedy that has happened to Africa, which the Africans didn't have a chance to prevent.

Mr. GILCHREST. Just one more. This may have been said before I came in. Is there an effective strategy now, or being formulated, to assist Africa in this area?

Dr. MERSON. Sure. There are many agencies today working both on prevention and on care activities, providing care and support. There is a lot of support, but it's not nearly enough. And if you want to have successful child survival programs, AIDS has to be seen as part of that, there's no question. To me, the line is very unclear what is AIDS and what is child survival because AIDS is going to be such a major killer of children that we just have to see them as one in terms of our understanding of what's going to happen to children in the world.

Mr. GILCHREST. You don't have to answer the last question. What is the worst case scenario for AIDS on the planet?

Dr. MERSON. I can't really answer that, but what I can say is the following, that we project 40 million infections cumulative by the year 2000, and that is a conservative estimate.

Mr. GILCHREST. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Representative Long?

Ms. LONG. With Mr. Gilcrest's questions, something came to mind. Earlier this week I heard a news story, or saw a news story, on the development of a vaccine that may be—we may be able to use in fighting HIV-Positive. Can you comment on that? How much of the news story was projecting what might actually happen versus what we found in the research?

Dr. MERSON. There are 11 experimental vaccines right now that have gone into man. Some of them—

Ms. LONG. That we're testing on humans?

Dr. MERSON. We're testing on man. There are 11 that have gone into man already. They are in what we call Phase I trials. These vaccines are primarily being manufactured in the United States and in Europe. There are two kinds of vaccines. These 11 fall into two categories. Some of them prevent infection in a person who is not infected, what we call prophylactic vaccines. Some of them are what we call treatment vaccines. You give them to persons that are already HIV-infected, with the hope that they won't progress to disease. And, in fact, there are some vaccines that it is hoped will do both, both prophylactic and treatment.

So, all these 11 experimental vaccines fall into one of these, if you like, three categories—preventive, treatment, or mixed.

Now, all of them have been given only in Phase I trials. It's important to understand this. A Phase I trial in a small number of people to look for two things, safety and immunogenicity—that is, to see whether or not an antibody response is formed. It tells you nothing about efficacy—I repeat, nothing about efficacy.

What has been reported this week in the New England Journal of Medicine, which has gotten a lot of media attention in this country, is a study done on one of those 11 vaccines. And it turns out it's a vaccine that has potential use for both prevention and treatment. It's made up of GP-160, which is a protein—it's a glycoprotein, which is part of the virus.

It was given to a small number of volunteers who already were HIV-infected, to see whether or not they would mount an antibody response that might provide them additional protection. In people

who got six doses intramuscularly, and in people that had a white cell count of greater than 600, which meant that their immune system was still reasonably intact, not seriously ill people, they were able to show a good antibody response.

So, I would summarize this as encouraging, but let us by no means exaggerate. It tells us only that person who are HIV-infected that still have a reasonable immune system intact, if you give them six doses of this vaccine, which is a lot of doses, they can mount a reasonable antibody response. It's promising, but we're a long way from applying this vaccine even in a field trial. I don't know what the report you heard was, but that would be the way—even Dr. Fanci is quoted in the Washington Post this morning pretty much saying what I just said.

Ms. LONG. Thank you.

The CHAIRMAN. Well, Dr. Merson, you have been most helpful to us. This Committee, for a long time now, has been really battling and at the forefront of working on child survival activities. We push, scream, and yell, and legislate, trying to make a major dent in the world by the year 2000, with immunization, and vitamin A, and breastfeeding, and boiling water, and basic education, oral rehydration therapy, and if we don't include AIDS education in this, we're kidding ourselves because, as I listen to you, that that is becoming a tremendous killer for adults and will for children, and it's got to be part of the whole child survival program. And that's why we thought it was very relevant to have this hearing today and connect it with child survival, because we're kidding ourselves if we don't start thinking in terms of AIDS as not being connected to the whole child survival program because we could do all the things that we know that can eliminate infant mortality rates for children, and if we don't consider AIDS in the same breath with education, it's like putting your finger in a dike.

You've been very educational for us today, and that's what we really need but, more importantly, the responsibility doesn't belong to you, it belongs to all of us, and I think for too long we've allowed people like you to kind of carry the responsibility and say, "Well, that's not part of us, and that's never going to be part of our families, and that's not part of this society", but the fact is, it's all over and it's around us.

One of the keys seems to be we need to do a much better job of educating ourselves and our own people and the world. It's enough to stay on top of child survival activities, but now—it's got to be included in our programs. So, you've been most helpful, and I thank you very much.

Dr. MERSON. May I say just one thing, sir, and that is that, if you would permit me a final remark, and that is that I think it's terribly important that you continue to support these overall child survival activities because, if you didn't, the mortality situation would even get much worse. I wouldn't want my testimony to be interpreted as meaning that, sir.

The CHAIRMAN. Yes, thank you, I agree. I think what we'll do is, combine—panels. Since we only have one person on each panel, if it's okay with the two witnesses, I'd like to bring them up together.

Mr. Richard Bissell, who is the Assistant Administrator for the Bureau for Science and Technology at the United States Agency

for International Development, and Dr. Milton Amayun, who is the Manager of the International Health Programs, World Vision Relief and Development.

And, Mr. Bissell, if we could start with you with a statement or summary, or whatever you want to do, and then go to Dr. Amayun.

**STATEMENT OF RICHARD BISSELL, ASSISTANT ADMINISTRATOR, BUREAU FOR SCIENCE AND TECHNOLOGY, UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, ACCOMPANIED BY DR. MILTON AMAYUN, MANAGER, INTERNATIONAL HEALTH PROGRAMS, WORLD VISION RELIEF AND DEVELOPMENT**

Mr. BISSELL. Thank you, Mr. Chairman. In a reprise of your comments that you just made, I'd like to commend this Committee for taking up the issue of AIDS. We've had a good dialogue with this Committee on many issues over the years, and I think it's very timely that we begin discussing AIDS as well.

I also want to thank Mike Merson for an outstanding piece of testimony. What he described in terms of the international AIDS situation and WHO program is so close to my view that I can readily summarize my testimony. The kind of collaboration he referred to between the WHO program and AID, indeed, is organic and ongoing.

I have made available prepared testimony which I don't want to read to you, and if you would insert it in the record, I would appreciate it very much.

The CHAIRMAN. Yes, we will, thank you.

Mr. BISSELL. There are several points which I would like to bring out, and make several comments to bring to your attention today.

One of the purposes of my testimony is to put in context what we are doing in AIDS, and there are several contexts that I think are terribly important, particularly that pertain to child survival and AIDS. One is that the Agency, in the last six months, has undertaken a new initiative called the Family and Development Initiative. It attempts to put into a social context and household context some of the development issues that we have been dealing with for many decades. It is an exceedingly valuable perspective in terms of looking at what is happening in the impact of AIDS upon children, where we see growing numbers of orphans. We are focusing on families in terms of dealing with those issues and we are focusing on family decisions in terms of preventing the spread of AIDS as well. We see a major role for the AIDS issue in terms of that particular program initiative that the agency is developing at this time.

The second context that I describe in my testimony is our extensive work on child survival. Like you, Mr. Chairman, we feel concerned about the extent to which our progress may be imperiled by the rapid spread of AIDS in Africa, Asia, Latin America, and so forth.

We have made major gains over the years, as you saw in our recent five-year report of child survival gains, and we are deeply concerned about maintaining the momentum that we have already established in making life better for the world's children.



I also have several comments. It's important to keep in mind that Dr. Merson described his estimates of the number of HIV-positive individuals in the world by the year 2000 a conservative. In fact, every estimate that we have had on the number of AIDS patients and HIV-positive individuals in the world, has been overtaken by six months to a year, changing the number of individuals affected by some magnitude. The 40 million figure for the year 2000 of HIV-positive individuals, in fact, is a conservative estimate.

That's not only a demographic fact; it is also a geographic fact. We are increasingly turning our attention to build on what we have learned in combatting AIDS in Africa, looking at Asia and Latin America in order to try to get ahead of a tide which is already rolling through those regions. It is not an easy process, but one that we think is essential in the current epidemiology.

I'd like to make a comment about interventions. One of the most difficult things about combatting AIDS, and particularly for a very vulnerable part of the population like children, from AID's perspective, is that we are dealing with a behavior issue, not a medical issue. There is no magic cure we can give anybody yet. We deeply hope that we will, in fact, arrive at a treatment or a vaccine but, in the meantime, we're dealing with a process of education and behavioral change that is only proximate in its impact.

We, in fact, have had some successes that is measured by increases in condom use. At the same time, it is discouraging to see that behaviors do continue to allow the spread of AIDS, not only within traditional areas such as Africa, but also in additional countries, particularly in Asia.

We have devoted a great deal of resources to this. Over the last five years, we have provided some \$69 million to WHO, the Global Program on AIDS and the United States has been the leading donor. This year, we are providing some 30 percent of the support to that program from all donors, and WHO has done outstanding work with that money, providing international coordination, assisting national governments in terms of planning overall AIDS campaigns in their countries, supporting research, and I think that kind of effort needs to be commended.

We have also, over the last five years, spent over \$91 million in AID bilateral programs, supporting individual developing country governments. Where the political will exists to do something about this very difficult issue, we have constructed programs to support increased social marketing of condoms, education, awareness programs, building community-based programs which over the long-term will be best at modifying behavior. This year, in 1991 alone, we are providing some \$23 million to WHO and nearly \$57 million through our bilateral programs.

Let me make a few comments about the future. It is essential that we begin to show that in certain countries we can break the back of the momentum of the AIDS pandemic. As a result, we will begin in the next year to identify some 12-15 emphasis countries—a concept, Mr. Chairman, you will be familiar with from our child survival work—in the AIDS area where we can combine the political will and the institutions, as well as those that we can build, to achieve the kind of progress essential to hold back AIDS. That set of emphasis countries we will review with you, Mr. Chairman, be-

cause I think it's important that we have a consensus on where we can attack this visibly and show that we can make some progress. Otherwise, it's all too easy when dealing with AIDS to become discouraged, and that is not something that we can afford at this point in time.

The second thing we're doing is that our funding to combat AIDS will rise. We requested for '92, in the budget, \$55 million in the AIDS account, plus an additional \$17 million in our budget for bilateral funding out of the Development Fund for Africa. Over the course of the fiscal year, funding will rise above that.

The third thing is that we need to focus on mobilization. We need to focus on mobilizing the elites in societies. We need to focus on mobilizing the public. We need to focus on mobilizing community institutions, because working through peer groups is the best way in terms of modifying behavior, to educate individuals wherever they may be in a society.

It has already been said that one of the most dangerous things about AIDS is how invisible it is. The existence of HIV-positive individuals can go unnoticed in societies until they begin to die.

I am sometimes asked whether or not we need additional resources to combat AIDS. My answer is yes. The kind of resource that we need right now is not necessarily money. Number one on my list is that we need political leadership in this. We need the kind of political leadership that will visit the heads of governments in Africa and Asia, and sit down with them to explain to them persuasively, from the highest level, political leader talking to political leader, why one has to get ahead of this wave. We can come in with all the resources we want, but if we don't have the support of political leadership in countries who take up this campaign to deal with what are highly sensitive issues or ones that need mobilization throughout the society, we cannot be effective.

We had a taste of this earlier this year. My Administrator, Dr. Roskens, as well as Secretary of HHS Sullivan, went to Africa for three weeks, and sat down with six or seven national leaders, and got a highly responsive audience with those leaders. That kind of engagement—and it shouldn't be restricted to those two individuals, but ought to be a responsibility of political leaders to invite political leaders throughout the world, to deal with one another on this issue.

It is a focus not only of developing countries, but also where all of the donors in the world work together. The United States is providing a large share of funding available to fight AIDS, and all of the developed world needs to come together more clearly in support of their bilateral programs as well as WHO, to make sure that we are effective in the kinds of specter we face in the year 2000 doesn't come about. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Richard Bissell appears at the conclusion of the hearing, see p. 54.]

The CHAIRMAN. Dr. Amayun?



**STATEMENT OF DR. MILTON AMAYUN, DIRECTOR, INTERNATIONAL HEALTH PROGRAMS, WORLD VISION RELIEF AND DEVELOPMENT**

Dr. AMAYUN. Thank you, Mr. Chairman. It is a great honor and pleasure for me to represent a PVO doing its very best in combating AIDS in different countries of the world.

World Vision is a Christian humanitarian organization working in 90 countries. Since its inception, World Vision has focused on a commitment to promote children's health and well being, to protect them from illness, violence and abuse, and to improve their social and physical environment through community development activities. In 1990, World Vision managed 5,000 projects benefitting 28 million people, including one million sponsored children. To support such activities, we raised and spent \$250 million.

In 1986, World Vision began a partnership with USAID, UNICEF, WHO and other PVOs in the promotion of Child Survival and Primary Health Care in countries with high infant and child mortality rates. Today, we have nearly 30 ongoing mid- and large-size child Survival projects, funded by private and government funds from the United States, Canada, Australia, and the United Kingdom.

We have seen a lot of dramatic gains in child survival in countries such as Senegal, Mauritania, Kenya, Bangladesh, Haiti, Zimbabwe, and Uganda, among others. Communities have been mobilized to organize support and resources for health services. Mothers have been trained to give oral rehydration therapy to their children, and family planning acceptors have increased in all of our projects. We have noted significant reductions in infant and child mortality rates.

Five years ago, AIDS emerged as a significant threat to the health of children and families. Now it is poised to wipe out our gains in child survival. In East Africa, AIDS is killing children faster than they could complete their vaccination protocols. In some countries, particularly Tanzania and Uganda, AIDS is killing young parents, leaving orphans to face a future of destitution and hopelessness. In at least one country, Romania, the deadly combination of orphanhood and AIDS has arrived.

To illustrate further, I would like to give you a few examples. Uganda is a country that has undergone civil war, drought, and massive internal displacement of a large segment of its population. With a battered physical and social infrastructure and a GNP per capita of less than \$280 per year, it could hardly implement a vaccination program. Now, AIDS is crippling the country's newly implemented primary health care program. Dispensaries and hospitals at all levels throughout the country are saddled by large case-loads of AIDS patients, young and old alike, male and female.

Last year, I personally visited two districts of Uganda, Rakai and Masaka. There I saw families with no breadwinners. The 20-to-45 age group has been decimated, leaving behind a disproportionate number of small children and old people who are all dependents. This scenario was repeated in village after village of the two districts.

In Kenya, working with USAID funding, World Vision has an AIDS prevention project in two densely populated slum areas within the city of Nairobi. In one survey, 60 percent of the prostitutes have been documented to be HIV-positive and this proportion is known to be increasing. The number of HIV-positives in the general population has also increased.

This project started out with a prevention and health education emphasis. However, our original mode of assistance had to be reoriented due to the increasing number of HIV-positives who were confronting us and who were dying. Many of them have helped the project by becoming peer educators for AIDS prevention. Those who were sick among them and who were known to the project had to be assisted materially and supported emotionally. Those who died required assistance from the project for burial in their own villages.

In Romania last week, I visited several orphanages in the city of Constanta, a seaport town on the Black Sea, where tourists from several countries of Eastern Europe come to enjoy the weather and the shores of the large lake. Constanta has a population of 500,000, and over the last three years, more than 1,200 AIDS cases have been confirmed. Five hundred of these cases were children under the age of five. This incidence rate must be among the highest in the world.

In one orphanage that I visited, I was shocked to see crib after crib of HIV-positive infants and small children. While most were relatively healthy at this point, they were doomed to simply wait for the time when the symptoms of AIDS would appear. I also visited a hospital packed with 62 sick children all under the age of four, dying of AIDS. They displayed the classical signs and symptoms of opportunistic infections such as pneumocystis, cytomegalovirus, and tuberculosis. Every single one of them showed deteriorating health, and several were obviously near death.

We in World Vision understand the following factors to impact AIDS and its transmission in developing countries. One, AIDS is a disease of the poor and has the potential of making poor countries even poorer. Economic productivity is diminished by a reduction in the workforce and by an increase in the number of dependents in the population. And, because the countries that are saddled with large caseloads of AIDS are also the countries with large debts, it will be difficult for such countries in Africa, Asia, Latin America, and Eastern Europe to provide resources for their own economic development.

Two, we have observed that the AIDS epidemic has now shifted from being a disease of a few high-risk groups to being a disease of the general population. Consequently, the proportion of women and helpless innocent children afflicted and dying with AIDS has increased. Furthermore, the impact of AIDS is not only on children's health but also on their future. The case of Romania and the thousands of orphans left behind by parents dying of AIDS in Uganda and Tanzania are equally disturbing.

Three, the issue of quality of life of children and adults sick with AIDS has so far not been adequately addressed. Given that HIV-positives face certain death, this is no reason for those of us who are aware of human rights and public health issues to leave them

to die unattended, uncared for, and forgotten. Children dying of AIDS anywhere around the world are innocent victims. They deserve our attention.

And, four, AIDS is an urgent issue because of its ability to undo gains in infant mortality reduction. It must become a priority agenda in Child Survival and Primary Health Care programs around the world.

What is World Vision doing in AIDS? I would like to cite a few examples. One, we have AIDS prevention campaigns focusing on information, education, counselling, and in some areas, condom distribution. Our projects have targeted both high-risk groups and the general population in Zimbabwe, Kenya, Tanzania, Chad, Ghana and Thailand.

World Vision has an ongoing three-year project to assist 30,000 AIDS orphans in three districts of Uganda. This is with World Bank funding

In Romania, we just committed funds for the basic necessities of orphans who need care and are dying of AIDS. Personnel and supplies are being provided to make the last days of these children easier and less painful.

We also have a research project that has been proposed in India, to explore issues involving women and how they are affected by AIDS.

Mr. Chairman, with these few steps, we in World Vision realize that the problem is much bigger than what we can do. We have not even begun to scratch the surface. The biggest difficulty we face is the dilemma of committing resources to AIDS activities at the expense of other ongoing development work. Doing more AIDS activity sometimes means reallocating resources from some other development or relief work.

We would like to be more involved, and would like to expand activities to more countries. However, like most PVOs, we need additional funding to do so. We also need the partnership of governments, international organizations, communities, and other PVOs to combat the epidemic. Our inability to do more in AIDS prevention could mean the loss of a whole generation of children in some communities and countries. Thank you very much.

[The prepared statement of Dr. Milton Amayun appears at the conclusion of the hearing, see p. 49.]

The CHAIRMAN. Thank you. These pictures were taken last week?

Dr. AMAYUN. Some of them were taken two months ago, a couple of them were taken last week.

The CHAIRMAN. Now, are these children that are orphans and children that have AIDS?

Dr. AMAYUN. Orphans with AIDS.

The CHAIRMAN. With AIDS.

Dr. AMAYUN. Yes, Mr. Chairman.

The CHAIRMAN. Now, this child here is malnourished and diseased—

Dr. AMAYUN. With tuberculosis.

The CHAIRMAN. With tuberculosis. Very sobering pictures.

What have you learned, Doctor, with your programs in Romania and other countries? What lessons have you learned that you can

tell us about, and how we should start to really work on this program?

Dr. AMAYUN. One thing we learned in Romania, Mr. Chairman, is that when the government was ready to discuss AIDS and its impact on the country, like what Dr. Merson said, it was too late. It was only in the last year that Romania began to admit that AIDS even existed in large numbers in that country.

So, if there is one thing that we have learned in our programs, it is that we need to talk openly about AIDS and accept that it is there, and that it is a problem, and that it needs our attention. That would be the primary lesson that we have learned in our AIDS programs in Romania.

The CHAIRMAN. A study that was prepared for the Hunger Committee states that the poor are the first to suffer from AIDS because they don't have access to treatment, they are unlikely to respond to education campaigns because of low literacy levels.

How do we reach the poor people and save poor children suffering from AIDS?

Dr. AMAYUN. Mr. Chairman, there are two strategies that are already existing around the world, and that is, most countries have primary health care activities, and these primary health care activities reach up to the lowest level of the political structure, including villages in remote parts of Africa. We need to include AIDS as part of the strategy of primary health care because it rightly belongs there.

Second, we have the expanded program of immunization that has done a lot to increase the awareness of mothers, communities, village leaders, and other members of the community regarding disease prevention, disease causation, and what communities themselves can do to prevent diseases, illnesses, especially among children.

We need to build in the strategy of AIDS prevention into these two existing programs, and expand such programs from there.

The CHAIRMAN. Mr. Bissell, you said in your testimony that AID now has a better understanding of how to prevent the spread of AIDS. Can you elaborate on that, give us a little bit more detail on what you mean by better understanding?

Mr. BISSELL. Yes, I can, Mr. Chairman. The issue of understanding the spread of AIDS is one of identifying means of reaching the most vulnerable parts of the population, which means identifying institutions or media, and then coming up with a message that is persuasive.

We have found, for instance, that there is a tremendous amount of field testing required to both identify useful institutions as well as messages. In Kenya, for instance, we've worked through an NGO, the Crescent Medical Aid, which has an existing system of health clinics in the poorest areas of Nairobi, to build in an AIDS component to go out and see how they could communicate the AIDS message to those who are at the bottom end of the economic ladder. Through a process of experimentation, they have come back to us with lessons that can be applied in many other areas of Africa.

We face similar problems in dealing with orphans. The magnitude of the issue and the fact that we are dealing with different

social situations in African countries, different from the United States, means that we have to find out what is appropriate to the African environment.

In Uganda, for instance, this year, we're using some \$500,000 to fund three different approaches to home and community-based care of AIDS orphans. We will, at the end of the year, be able to write a report on which really succeeded—which succeeded in terms of responding to the needs of those children, and incorporate it in a way that makes sense in Uganda culture.

As a behavioral issue, AIDS is a culture-specific issue. There is science involved, no question, but as we go into areas—and Asia will have its own issues apart from what we've learned in Africa—we have to work with local governments, with local institutions, particularly health and education institutions, to find ways to take a message which we know makes sense scientifically and translate it into something that makes sense culturally and educationally.

The CHAIRMAN. Dr. Merson said that—UNICEF isn't doing enough. Do you agree with that?

Mr. BISSELL. UNICEF is doing more today than it was a year ago or two years ago. The discussions at the most recent Executive Board of UNICEF were gratifying, and the dialogue between those on the Executive Board and the management of UNICEF, makes it clear that UNICEF will be devoting considerable resources to this issue. They have some capable staff members, and they see that it is quite clear that AIDS will be a child survival issue as much as other issues that they have traditionally focused on at UNICEF.

I suspect there was a tendency in past years, on the part of UNICEF, to believe that AIDS could be managed by WHO. It's quite clear now that the question of AIDS is not only one that will not be turned around in a few years, but that it's also going to take everybody's efforts working together. And as far as I'm concerned, UNICEF is a full member of the team now.

The CHAIRMAN. In April, we had a hearing—I believe Byron Dorgan, the Chairman of the International Task Force held it—and always at the end, we have questions that we don't get a chance to get to. We always have more questions than we do time.

One of the questions was, what was funding for AIDS and child survival in Africa? The answer that we got back that was shared with the Select Committee, I believe, were preliminary figures—I'm not sure—but for AIDS for Africa, for fiscal 1991, your budget figures were \$29,243,000—that was for '91—and what you're asking for in fiscal 1992 is \$15,681,000. You're asking for half that.

Mr. BISSELL. Let me explain that number, Mr. Chairman. The FY91 numbers were put together a year ago when we wrote our congressional presentation, our budget request to Congress. As a result, in our Africa region where we are establishing new projects monthly, a lot of what could be projected in '92 just didn't exist at that point.

There have come on-stream a number of projects since then, in the course of this fiscal year, in which we committed a large amount of up-front money. As you see from the table, the figure for '91 of \$29 million in Africa money, is over twice as much as the \$13 million in FY90.

That Africa number will come in substantially above \$29 million in the course of FY92—that is, as the missions realize what it is they have both in their portfolios and bilateral projects this year, created this year, as well as the additional ones they will create next year in '92.

It is a fact that, as we find commitments from African governments willing to take on the AIDS issue seriously, we open up projects at that time. We are hopeful that that number can be increased even more substantially.

As you know, we have the resources in the Development Fund for Africa. It is not a restriction of resources. We have the flexibility to use any of those DFA monies for AIDS. The question is our ability to identify a solid national plan and the political commitment by African leaders, to take seriously the AIDS issue, and you will see that number go substantially up in '92, beyond the '91 level.

The CHAIRMAN. So, in 1991, this year, you plan to spend \$29 million.

Mr. BISSELL. That's an accurate estimate, that's not just a plan.

The CHAIRMAN. Now, that money will not go over till 1992. In 1992, you are asking for \$15 million, but you have the ability within the African Fund, to shift money around, right?

Mr. BISSELL. Absolutely.

The CHAIRMAN. Without us telling you what to do.

Mr. BISSELL. Absolutely. The \$15 million, in fact, is not even really a request. It's a guess by the Africa Bureau, as I say, on the basis of projects they had operating a year ago, as to what they would likely need to commit in '92, knowing full well that when they reached '92—and as you know, the appropriation is coming through with a very substantial increase for Africa—that they would have the resources available to put into the new projects of '91, as well as ones created in '92. As a person who managed AID's budget for four years, I can pretty well assure you that that number is going to be in the 30s somewhere, in '92, for Africa.

The CHAIRMAN. For AIDS?

Mr. BISSELL. Yes. And the same will happen on the child survival number as well.

The CHAIRMAN. Well, this is why Congress—I know you guys don't like earmarks—this why Congress will earmark, you know, because everybody is telling us they don't like earmarks, but I was looking at the bill yesterday, and there's 50 earmarks in the bill, and I was earmarking child survival and basic education because we, in the past, have had some very nice words and reports about targeting and stuff like this, and we find out that our targeting language is like water pouring out in the sand, it's not going anywhere. That's why Congress has a tendency to target, because they want the money spent in that area. So, hopefully, next year, that figure will be \$30 million.

Mr. BISSELL. I'm quite confident it will be. Under the Development Fund for Africa flexibility, they have tended to hit those targets—in fact, exceeded most of the targets. Estimating outyear expenditures in Africa these days is increasingly difficult. Starting up projects in which to commit those funds is something which doesn't fit well in our current appropriations cycle. Designing our budgets



a year and a half in advance of the actual start of the fiscal year doesn't give a lot of concrete reality to a region where things are shifting quite rapidly.

The CHAIRMAN. Representative Gilchrest?

Mr. GILCHREST. Thank you, Mr. Chairman.

I guess this is a question for both of you, Dr. Amayun and Mr. Bissell. How well do you network as far as being two separate organizations in, let's say, Uganda? Mr. Bissell, is the Agency for International Development in Uganda?

Mr. BISSELL. Yes, we are. We have a mission there with a full AIDS project underway there.

Mr. GILCHREST. So, is there a collaboration with that in Uganda?

Dr. AMAYUN. Definitely. Definitely, sir.

Mr. GILCHREST. Then I guess with your approach to Africa or other areas of the world, there is also kind of a roundtable discussion on how to pool all the resources so there isn't duplication or areas that aren't concentrated on?

Mr. BISSELL. This is an important issue because in this fight against AIDS, we do not want resources wasted. There are different types of coordination that occur. At a global level, the principal coordination occurs at WHO, through the Global Program on AIDS, and major discussions about priorities, possibilities, opportunities, occur at WHO, involving all the major donors. AID plays a central role in order to ensure that both what is done multilaterally at WHO but also what the separate donors do through their bilateral programs in each country, that they make sense, that they fit together, because that's terribly important.

When it comes to the country level, there are two kinds of coordination that are important, and here again the institutions have to work together closely. Dr. Merson spoke about the importance of developing national plans of action at the national level because, ultimately, the responsibility is the host government. If a plan against AIDS doesn't make sense to them, it won't go anywhere.

Mr. GILCHREST. You must find it very difficult then, to work with, let's say, Liberia right now.

Mr. BISSELL. It's impossible.

Mr. GILCHREST. Or Ethiopia, or Sudan, or Cambodia.

Mr. BISSELL. That's a major problem. Yes, it is.

Mr. GILCHREST. Is there anything going on in those countries, any collaboration at all?

Mr. BISSELL. What happens in those countries where one has not been able to create a coherent pattern of coordination, is that we support projects by individual NGOs such as World Vision. Such work is very valuable, but we want to see the long-term effort against AIDS occurring with the centralized endorsement of the host government, so that when the different donors, both multilateral and bilateral as well as the NGOs, come into a country, they are working within a coordinated pattern in order to address the different segments of society.

Dr. AMAYUN. I would like to cite a few encouraging examples of this collaboration. In Vietnam, for example, they now have a National Strategy for the Prevention of AIDS, and this was created only in the last few months, and World Vision was one of the few NGOs invited to participate in the elaboration of that program.

There are a few countries in Africa that already have those medium-term plans and short-term plans, and whenever those strategies are in place, it is easier for PVOs like World Vision to fit into the national plan because we are able to see where the country wants to go, and we are able to identify where we should be geographically and strategically.

Mr. GILCHREST. I don't imagine AIDS is in Africa—I mean, Vietnam?

Mr. BISSELL. Not yet.

Mr. GILCHREST. When you go into a country like certain areas of Vietnam, or certain areas of Africa, and probably quite a few places in Latin America, and you have hospitals who do not, on a regular basis, have electricity or facilities that would be conducive toward treating AIDS patients, and do not have any regular system of education, how do you approach—and you were talking about getting the political will of the country involved with the communities. It must be a monumental task to get that information and that health care to communities that, in some instances, don't have either.

Mr. BISSELL. You're right, it is a major challenge. In parts of Africa, for instance, the average expenditure on health care, total health care, of individuals is \$2 per year. The idea of allocating some of that to AIDS is a tradeoff, choices over other kinds of health care they are not going to be able to provide.

Mr. GILCHREST. I guess what I'm asking, do you go to these villages and, through an interpreter, actually try as best you can to describe the medical and scientific aspects of this disease, what it does, how to prevent it?

Dr. AMAYUN. Yes, sir, we do. In the areas where we work, especially in Zimbabwe, Kenya, Chad, Thailand, what we do is visit villages, work hand-in-hand with the local ministries of health, strengthen their health education capabilities, and provide the logistics and supplies that they need to be able to do a good job.

I would like to mention, though, that there are some countries that don't even have a medium-term plan for AIDS prevention. And, notably, I would like to mention that Romania, with all the children now that I have mentioned dying of AIDS, they don't have even a short-term plan for AIDS prevention.

Mr. GILCHREST. Is there coordination in some of the under-developed countries with the Peace Corps, with mission stations that are there already, set up providing a variety of things?

Dr. AMAYUN. Sir, wherever there are Peace Corps programs with a significant health component, we have always tried to collaborate with them. I would like to mention the good collaboration we had with the Peace Corps in Senegal, where a Peace Corps volunteer was assigned to be the epidemiologist for the regional health office we were working with in the region of Louga in Senegal. We also had an AIDS prevention project in that region, and we collaborated very well.

Mr. GILCHREST. My vision of missionaries is Dr. Schweitzer. I don't have a lot of experience in that, but it seems to me that he was in the forefront of providing health care to people. Is that an avenue that has been explored, should be explored—Methodist Mis-



sion Stations, Catholic Mission Stations, Lutheran Mission Stations? Are they involved in the framework of this initiative?

Mr. BISSELL. Absolutely. And their networks of missions throughout the developing countries are important NGOs because of the, as you describe, the role they play at the grassroots—that is, their daily interaction on very basic issues of life—means that their chance to involve, to educate, to help people once they begin to develop symptoms, to explain what is going on, is invaluable, and they certainly play a role.

Mr. GILCREST. Just a couple of quick ones. You mentioned in your earlier testimony that you have raised, in 1990, I guess, \$250 million?

Dr. AMAYUN. Worldwide.

Mr. GILCREST. That was \$250 million for that particular year. How do you raise that money? Is it just contributions?

Dr. AMAYUN. Contributions, mostly private donations, sponsors in developed countries like the United States, Canada, New Zealand. A sponsor will commit a certain amount to support a child, and that sponsor will send the money every month. And we have about one million sponsored children around the world.

Unfortunately, the proportion of the money we are committing to AIDS from the pool of money is very little because of other ongoing commitments.

Mr. GILCREST. So, of the \$250 million, how much would you say goes to AIDS?

Dr. AMAYUN. One percent.

Mr. GILCREST. Is this money taxed?

Dr. AMAYUN. It is tax-free—tax-free in the United States, at least.

Mr. GILCREST. OK, so, it might not be tax-free in other places?

Dr. AMAYUN. It is not tax-free in some countries in Europe.

Mr. GILCREST. Of those number of children under five in Romania that have AIDS, did they basically all get it as a result of being born with it?

Dr. AMAYUN. There is a debate right now as to how AIDS is transmitted to these children. Our experts in Romania say that it is still due to poor medical practices. The Minister of Health says, however, that it has shifted from poor medical practices like the use of unsterilized needles in hospitals. So, it is doctor-generated, if you might want to call it that, or hospital-caused.

The Ministry of Health is saying that there has been a shift from this type of transmission, to what we would call a perinatal transmission, meaning to say the mother transmits it to her child. However, we believe that both types of transmission still occur in Romania.

Mr. GILCREST. I hope that changes soon. Mr. Bissell, looking on the list of the amount of money that goes to various areas of the world, and in 1992 it's \$15 million to Africa and \$1.9 million to Asia, is that money allocated as a result of the immediate need rather than the projected problem, considering the number of people that live in Asia?

Mr. BISSELL. No. Actually, those were very preliminary estimates of what we would likely spend there, and I was checking on those,

and those numbers are going to be going up considerably, actually, in 1992.

To give you an example, in Asia, the only existing program we actually have in AIDS is a bilateral project in the South Pacific, but we are negotiating one in India right now, which will be a major project, quite clearly in terms of the threat there, and we were negotiating one in Thailand, until the military coup came on and cut off our AID program, but we will find a way to work in Thailand, in any case. So, with both of those programs coming on-stream, for instance, the Asian number will rise considerably in actuality, in '92.

Mr. GILCHREST. Military Coup cut off the AID program?

Mr. BISSELL. Yes. By law, when there is a military coup in a country, we have to shut down our AID program.

The CHAIRMAN. So, I guess you don't have one in Liberia?

Mr. BISSELL. No, we don't.

Mr. GILCHREST. Thank you, gentlemen, very much. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you. I want to thank all of you as witnesses, and it's clear that we face a tremendous challenge if we are going to really preserve the progress that we've made in child survival activities.

I've introduced a bill called the Freedom From Want Act, along with Mr. Emerson, and it's an omnibus hunger-related bill. It's a very large bill. It has, about 180 pages in it, dealing with all kinds of activities, but we have included a section in the Freedom From Want Act, it's Section 234, and it requires the President and AID to promote, encourage, and undertake activities related to research on the treatment and control of AIDS, particularly with respect to pediatric AIDS, and today's hearing makes it very clear that this initiative and more initiatives like it in the Congress are desperately needed if we are to head off this crisis in the next century.

Again, I want to thank you for your testimony. It's very sobering to us. We've learned a lot, and it's clear we have a lot of work to do. So, thank you, and this concludes the hearing.

[Whereupon, at 11:25 a.m., the committee was adjourned.]

[Material submitted for inclusion in the record follows:]

## FAMILY AND DEVELOPMENT INITIATIVE

Mr. Hall: What new will be done under A.I.D.'s Family and Development Initiative that is not presently part of A.I.D.'s child survival, maternal health, basic education, AIDS, or other programs?

Answer: Focusing on the role of the family in development is not a new idea. It is used in many areas, from farming systems research to education policies. However, there are many instances where it is overlooked and could provide important insights for the design and implementation of policies and programs. The perspective reflected by this initiative should flow through A.I.D.'s current and new programs to improve their effectiveness and impact on people. In some cases, there may be new activities, in others expansion of on-going programs that have successfully focused on the family and in still others a new lens through which existing activities are viewed. Decisions affecting children are made by their families. Benefits to children occur not only from assistance directed specifically at children, but also as a result of more attention to the dynamics of the family system during the design and implementation of both project and non-project assistance in all areas of A.I.D.'s portfolio. Expanded use of "family level" analysis in project and program planning will enhance the success and effectiveness of a broad range of development efforts and will support the real needs of poor families and

their children. In addition to the analytic component of this initiative, programmatic strategies will include: increasing family income by expanding opportunities for participation by families in the economy; strengthening the family's capacity to care for and support its members through improved options for health care, family planning, education, nutrition and other social services; and reducing the impact of conditions which place family members at risk.

## CHRONIC FOOD INSECURITY

Mr. Dorgan: Please specify A.I.D.'s strategy for reducing "chronic food insecurity." How much of A.I.D.'s total resources are committed to reducing what you call "chronic food insecurity"? How does your strategy relate to the Bellagio Declaration's four goals?

Answer: The Agency has developed a multifaceted strategy, incorporating long-term and short-range, emergency measures to address chronic food insecurity. Total A.I.D. funding and the amount for agricultural activities are given below (in \$ millions):

	1990 (actual)	1991 (appropriated)	1992 (requested)
Total A.I.D.*	6,607	6,412	6,556
Agriculture			
Amount	815	960	994
Percent	(12)	(15)	(15)

\*DA, DFA, ESF, SAI, CARA (FY 1990 only)

Most of the funding for agricultural activities is for research and technical assistance. Through an array of global, regional and bilateral projects, A.I.D. is assisting developing countries improve their food and agricultural production systems and the nutritional status of their people. Efforts include research to improve food crops, policy analysis to encourage reforms that will raise food production and improve food distribution, and technical assistance to assess and resolve specific nutritional deficiencies, adapt food processing and fortification technologies, strengthen agricultural research systems, and improve rural infrastructure.

In addition to the above amounts A.I.D. devotes to helping countries achieve food security, the Agency also provides the following funding for food and emergency assistance (in \$ millions):

	1990 (actual)	1991 (appropriated)	1992 (requested)
P.L. 480*	810	1,065	936
Intl. Disaster Assistance	30	40	40

\*Title II & III Grants

Resources available under PL 480 Titles II and III are used to provide food aid to those who need it most (including the chronically disadvantaged) and to intensify local agricultural production, rural development and related social services.

With International Disaster Assistance, the Agency supports extensive famine early warning networks worldwide and has established mechanisms for rapidly responding to identified food shortages, as requested by national or international authorities.

A.I.D.'s strategy is fully supportive of the goals set by the Bellagio Declaration for the 1990s:

- Eliminate deaths from famine.
- End hunger in half of the poorest households.
- Cut malnutrition in half for mothers and small children.

--Eradicate iodine and vitamin A deficiencies.

To assure that the United States makes a substantial contribution to achieving those important goals in collaboration with other donors and international organizations, A.I.D. has established a specific set of objectives for its nutrition programs, as follows:

- reduction of protein-energy malnutrition in children under five years of age (1980 base-line) by at least 25 percent by 1995 and at least 50 percent by the year 2000;
- reduction of micronutrient deficiencies (iron deficiency in women of child-bearing age and children under five years of age and vitamin A deficiency that results in nutritional blindness) by at least 25 percent of 1980 base line levels by 1995 and by at least 50 percent by the year 2000;
- improvement in women's nutritional status and nutritional literacy to improve their productivity, health, and well-being and (for women of child-bearing age) to reduce the number of low birth weight babies and provide reserves for breastfeeding; and
- expanded household-level access to high quality, nutritious foods.

## FUNDING FOR AIDS AND CHILD SURVIVAL IN AFRICA

Mr. Dorgan: Figures supplied to Select Committee on Hunger staff by A.I.D. indicate that funding for child survival activities and AIDS in Africa will decline dramatically in FY 1992. According to the data supplied by your agency, the level of funding in FY 1991 for the category "Total Child Survival" is estimated at \$50,096,000, while your requested level for FY 1992 for the same category is listed as \$40,690,000. This is a requested cut of nearly twenty percent. According to the data supplied by your agency, the level of funding in FY 1991 for the category "Total AIDS" is estimated at \$31,017,000, while your requested level for FY 1992 for the same category is listed as \$15,091,000. This is a requested cut of more than fifty percent.

A.I.D.'s Mission Statement includes working "to improve the quality of human life and expand the range of individual opportunities by reducing poverty, ignorance, and malnutrition. In the context of this statement, and the needs of Africa, these cuts appear incomprehensible to me. Please explain to the Task Force the rationale for such drastic cuts in these key AIDS programs.

Answer: Budget data shared with the Select Committee were preliminary figures. Actual FY 1990 figures and estimates for FY 1991 and FY 1992 are as follows (in thousands of dollars) from all funding sources:

	<u>FY1990</u>	<u>FY1991</u>	<u>FY1992</u>
Total AIDS	51,382	79,800	71,800
[AIDS Africa	13,620	29,243	15,681]
Total Child Survival	185,587	203,000	211,700
[Child Survival/Africa	45,378	47,125	39,765]

FY 1991 funding levels represent a substantial expansion over FY 1990 levels and include multi-year funding of bilateral programs for both AIDS and child survival. For example, the major new AIDS program in Uganda will receive \$12 million in FY 1991.

Furthermore, the decreases between FY 1991 and FY



1992 levels for child survival and AIDS in Africa may not occur. Historically, our estimates for future programs in these areas tend to be lower than the levels actually realized. Thus, funding estimates for both AIDS and child survival may increase as we approach FY 1992 and missions are able to make firmer projections.

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## SUPPORTING ENVIRONMENTALLY SUSTAINABLE AGRICULTURAL PRACTICES

Mr. Dorgan: As you stated in your testimony, environmental degradation is a serious constraint on food production among the poor. Please detail, supplying examples, how A.I.D. is moving to address this problem by supporting more environmentally sustainable agricultural practices.

Answer: I welcome the opportunity to describe in more detail A.I.D.'s efforts to address this important problem. A.I.D. promotes broad-based, environmentally sound economic growth by helping to strengthen the capacities of developing countries to overcome the policy, technological, and structural constraints on their development. We do this by funding research at U.S., international, and developing country institutions; providing technical advice and training; and supporting the establishment and strengthening of institutions that are needed to promote sustainable development.

The Agency has been in the forefront of efforts to focus the research and technology transfer activities of the international agricultural research centers on sustainable agriculture. (The U.S. finances about 17 percent of the core operating costs of these centers.) Their work in such areas as alley cropping, biological control of insect pests, protection of genetic resources, national food and agricultural policies, and strengthening national research systems has been important in providing technologies and promoting improved farming practices for sustainable agriculture development in many developing countries.

Also, in FY 1991 A.I.D.'s Office of Agriculture has increased funding for six on-going Collaborative Research Support Programs (CRSPs) by 20 percent over recent annual levels in order to increase their focus on sustainable agriculture. At research sites around the world, these CRSPs are helping to resolve problems affecting the productivity of agriculture and destruction of the environment.

--The soils management CRSP is developing sustainable alternatives to slash and burn agriculture. Working in Peru, CRSP researchers have devised methods for, among other things, using trees and cuttings from trees to improve the fertility and productivity of lands already cleared for and degraded by agricultural use.

--The pond dynamics CRSP is increasing the profitability of fish farming as part of integrated farming systems that provide increased employment and a dependable, inexpensive source of animal protein.

--The bean/cowpea CRSP has a research project for the biological control of the major insect pests of beans and cowpeas, thus reducing or eliminating the need for chemical pest control. This CRSP focuses on the development of improved varieties with resistance to diseases and insects and efficiency of biological nitrogen fixation.

--The sorghum and millet CRSP has developed production technology for improved water utilization and erosion control in both sorghum and millet production systems. The CRSP has achieved a breakthrough in the control of Striga in sorghum which should contribute to increased sorghum production in areas of Africa and Asia that became marginal due to heavy Striga infestation. Sorghum and millet cultivars with resistance to diseases and insects have been developed.

--Intercropping systems of millet and cowpeas also have been developed that result in increased production over that of both commodities in monoculture. In the Sahel the need for returning organic matter to the soil for increased production has been demonstrated. Sorghum and millet cultivars resistant to a number of pests and diseases have been developed, lowering or eliminating the need for chemical control.

--The peanut CRSP has developed peanut cultivars and production systems that lower or eliminate the development of *Aspergillus flavus* that causes aflatoxin. Cultivars of peanuts have been developed with both insect and disease resistances that lower or reduce the requirement of chemical control. Integrated pest management strategies for controlling peanut insects have been developed.

--The small ruminants CRSP developed a new vaccine against contagious caprine pleuropneumonia in Kenya. Once it is widely available, the vaccine will prevent an average of 82 annual outbreaks involving an estimated 300,000 goats in Kenya alone.

The Office of Agriculture is designing a new sustainable agriculture CRSP that will involve the land-grant and other universities along with private voluntary organizations. The National Research Council of the National Academy of Sciences will manage the CRSP's global research plan design process, which includes a "peer review" of proposals on systems research focused on the major constraints to sustainable agriculture.

Other centrally managed research and technical services projects are being planned or revised to provide support to A.I.D. mission programs in integrated pest management, natural resources management and improving the capacity of local institutions to make sound decisions about the use of their natural resources. For example, in the Office of Forestry, Energy and Natural Resources a major new project is being launched to support development of host country organizational and institutional capacities; build analytical and managerial skills needed to integrate agricultural, economic and environmental objectives; and promote timely information dissemination.

The Office of Agriculture's soil management support services project assists countries to conduct resource inventories, an important tool for making environmentally sound decisions on land use for sustainable production. A research project on tropical legumes has not only increased the capabilities of some plants to biologically fix nitrogen from the soil, but has been instrumental in assisting countries such as Thailand develop local capability for the production and distribution of the bacteria needed to enhance biological nitrogen fixation. The results of this project will decrease the need for chemical nitrogen fertilizer. The integrated pest management project provides technical assistance, training, research and information networking on pest control to developing countries in the semi-arid and humid tropics.

In Latin America, a regional environmental and natural resources management project seeks to create conditions for public and private institutions to generate, transfer and apply the information essential for sustained use of natural resources in Central America. Sustainable agriculture is a major area of emphasis for this 40 million dollar project.

A new Caribbean regional project, to begin this year, will help improve environmental quality in Eastern Caribbean countries through community participation in management of

coastal and natural resources. New land-use planning and developmental policies will encourage integration of agricultural practices with industry and tourism for sustainable, environmentally sound and economically viable use of the region's natural resources.

The Agency's plan for supporting natural resources management in Sub-Saharan Africa focuses on soil fertility/conservation, loss of vegetative cover, and maintenance of biological diversity. A.I.D. is developing and testing a strategic framework for showing factors that have measurable impacts on agricultural productivity.

In Africa, the emergency locust/grasshopper assistance project focuses on short-term technical assistance and long-term capacity-building. This is one of the first activities to address ecologically rational pest and pesticide management in Africa as an important environmental area for agricultural productivity and food security.

In Egypt, A.I.D. activities have included promotion of biological and mechanical control of crop pests, crop rotation and intercropping, minimum tillage and development of more salt-tolerant cultivars.

In Indonesia the Agency's efforts have included training in



integrated pest management for agricultural workers, introduction of ridge terracing and alley cropping and establishing nurseries to meet farmers' needs for conservation fodder and trees.

For India, A.I.D. has funded the development of biopesticides for control of certain pests; the use of nitrogen-fixing trees and shrubs; and research on improved genetic materials for food, medicines, and other agricultural products.

In Bangladesh, A.I.D.'s farming system research project has developed 16 cropping patterns with associated technologies that emphasize sustainable techniques, including broiler fish production, pulses cultivation, and salinity control.

In addition to support for Nepal's well-known forest and agro-forestry activities, A.I.D. has funded irrigation research and development based on a sustainable model, the goals of which are efficient use of research and recovery of costs from the users.

It is clear from these examples that A.I.D. is very seriously pursuing environmentally sustainable agriculture for developing countries, in terms of both research that the Agency supports and technology transfer to developing countries.

## A.I.D. PLANS FOR USING CRSPS

Mr. Bereuter: Your testimony cites a good example of improvement in the productivity for a basic food crop (sorghum) through the Collaborative Research Support Programs (CRSPs) that A.I.D., under Title XII legislation authority, established in partnership with the university community. Congress has provided strong funding for CRSP activities because of well documented success in improving agricultural production both in the U.S. and in the developing world. CRSP activities have also focused on nutrition and on the relationship between food production and natural resource preservation.

What are A.I.D.'s future plans for the CRSP program and its funding levels? How can the CRSP program further assist in combatting hunger and malnutrition problems throughout the world?

Answer: The CRSPs are long-term research programs that have generated effective technologies to address developing country and U.S. problems. The funding levels of six CRSPs were increased by 20 percent in FY 1991 to strengthen their sustainable agriculture and natural resource management components. While proposed funding levels were reduced slightly in FY 1992 because of budgetary stringencies, A.I.D. intends to continue funding for the CRSPs to further our efforts to combat hunger and malnutrition through sustainable agriculture development.

A.I.D., in collaboration with the National Research Council and outside consultants, is completing design of a new sustainable agriculture CRSP, which we expect to begin in FY 1992. We are broadening the soils management CRSP to include complementary elements from

other centrally-managed research projects. In addition, we are considering new collaborative projects in pest management and postharvest utilization.

A council comprised of representatives of all the CRSPs is identifying areas where integration of collaborative research efforts can assist in combatting hunger and malnutrition as well as better address sustainable agriculture and natural resource management concerns. The council has identified watersheds in Honduras and in the Sahel (Niger, Mali, and Burkina Faso) as possible locations for collaborative inter-CRSP research activities. CRSPs are working together in developing systems-based approaches for watersheds and other micro-environmental units. This includes evaluating the impact of new technologies on the nutritional well-being and health of village children and adults. Useful approaches are also expected from the cross scientific relationships that have been established with the International Agriculture Research Centers.

STATEMENT OF CONGRESSMAN BILL EMERSON  
JUNE 13, 1991

HEARING OF THE HOUSE SELECT COMMITTEE ON HUNGER  
AIDS: THREAT TO THE DEVELOPING WORLD'S CHILDREN

Good morning. First I would like to commend my colleague Chairman Hall for holding this hearing today. AIDS and its effect on the developing world's children is an important subject that requires our immediate attention.

By the end of the century, the World Health Organization predicts that more than 8 million children around the world will be born with the Human Immunodeficiency Virus that can lead to AIDS. Over half of those children will never reach their fifth birthday. And many more may be orphaned as their parents fall victim to the AIDS virus.

Over the past several years, great strides have been taken in reducing death and disease among children and their mothers. The AIDS pandemic now threatens to reduce the progress we've made in these crucial areas. And tragically, the virus seems to strike ~~most~~ those countries ~~least~~ able to cope with its repercussions. As of this year, for example, over 60 per cent of HIV infections occur in sub-Saharan Africa, home to some of the poorest people in the world. The challenge before us is this — how can we prevent the spread of AIDS while sustaining the improvements in child survival and health across the Third World?

There continue to be exciting new developments in AIDS research. But there is still no cure for the disease and no drug to prevent it. The only vaccine we have right now is education.

Public information campaigns in places like Uganda, the Dominican Republic, and Thailand have been successful in increasing public awareness of the disease. The more that people know about AIDS, the more they can do to protect themselves against it. These public education programs need our continued support so that people get the information they need to survive.

I look forward to hearing from our witnesses today of the steps the international community has been taking to deal with the spread of AIDS and to prepare for the future.

**AIDS AS A THREAT TO CHILD SURVIVAL**

Testimony Given  
Before the  
U.S. House Committee  
on World Hunger

by

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**June 13, 1991**

## Introduction

World Vision is a Christian humanitarian organization working in 90 countries of the world. Since its inception, World Vision has focused on a commitment to promote children's health and well-being, to protect them from illness, violence, and abuse, and to improve their social and physical environment through community development activities. In 1990, World Vision managed 5,000 projects benefitting 28 million people, including more than one million sponsored children. To support such activities, approximately \$250 million was raised and expended.

## World Vision's Involvement in Child Survival

In 1986, World Vision began a close partnership with USAID, UNICEF, WHO, and other PVOs in the promotion of Child Survival and Primary Health Care in countries with high infant and child mortality rates. Today, we have nearly 30 ongoing mid- and large-size Child Survival projects, funded by private and government funds from the United States, Canada, Australia, and the United Kingdom.

Dramatic gains have been documented in Senegal, Mauritania, Kenya, Bangladesh, Haiti, Zimbabwe, and Uganda, among others. Communities have been mobilized to organize support and resources for health services. Mothers have been trained to give oral rehydration therapy to their children for episodes of diarrhea. Family planning acceptors have increased in almost all our Child Survival projects. Reductions in infant and child mortality have been noted.

## AIDS and Its Impact on Child Survival

Five years ago, AIDS emerged as a significant threat to the health of children and families. Now it is poised to wipe out our gains in Child Survival. In East Africa, AIDS is killing children faster than they could complete their vaccination protocols. In some countries particularly Uganda and Tanzania, AIDS is killing young parents, leaving orphans to face a future of destitution and hopelessness. In at least one country, Romania, the deadly combination of orphanhood and AIDS has arrived.

To illustrate, I wish to give you a few examples:

1. Uganda is a country that has undergone a civil war, drought, and internal displacement of its population. With a battered physical and social infrastructure and a GNP per capita of less than \$280, it could hardly implement a vaccination program that reaches out to its most remote districts without depending on large infusions of development aid. Now, AIDS is crippling the country's newly implemented Primary Health Care program. Dispensaries and hospitals at all levels throughout the country are saddled by large caseloads of AIDS patients, young and old alike, male and female.



Last year, I visited Rakai and Masaka districts. There I saw families with no bread-winners. The 20- to 45-age group has been decimated leaving behind a disproportionate number of small children and old people--all dependents. This scenario was repeated in village after village of the two districts.

2. In Kenya, World Vision is using USAID funds in AIDS prevention activities in Kibera and Korogocho -- two densely-populated slum areas within the city of Nairobi that have been hit hard by the AIDS epidemic. In one survey, 60 percent of the prostitutes have been documented to be HIV-positive and this proportion is known to be increasing. The number of HIV-positives in the general population has also increased.

While this project started out with a prevention and health education emphasis, our original mode of assistance had to be reoriented due to the increasing number of HIV-positives who have been helped to gain confidence to identify themselves publicly, and to act as effective peer educators. Those who were sick and were known to the project had to be assisted materially and supported emotionally. Those who died required assistance from the project for burial in their own villages.

3. In Romania last week, I visited several orphanages in the city of Constanta, a seaport town on the Black Sea, where tourists from several countries of Eastern Europe come to enjoy the weather and the shores of this large lake. Constanta has a population of 500,000. Over the last three years, 1,200 AIDS cases have been confirmed. Five hundred of these cases were children under the age of five. This incidence rate must be among the highest in the world.

In one orphanage that I visited I was shocked to see crib upon crib of HIV-positive infants and small children. While most were relatively healthy at this point, they were doomed to simply wait for the time when the symptoms of AIDS would appear. I also visited a hospital packed with 62 sick children all under the age of four dying of AIDS. They displayed the classical signs and symptoms of opportunistic infections such as pneumocystis carinii, cytomegalovirus, and tuberculosis. Every single one of them showed deteriorating health; several were obviously near death.

#### Some Observations on AIDS

Our current understanding of AIDS and its impact in developing countries has been shaped by the following observations:

1. AIDS is a disease of the poor and has the potential of making poor countries even poorer. Economic productivity is diminished by a reduction of the workforce which is also the economically and sexually active segment of the population. The increased number of AIDS cases requires additional resources to provide care and treatment. Orphans and dependents need assistance before they could become economically independent. Under such circumstances, it will be much more difficult for countries

of Africa, Asia, Latin America, and Eastern Europe, who also have large debts per capita, to provide resources for their economic development.

2. The AIDS epidemic has now shifted from being a disease of a few high-risk groups to being a disease of the general population. Consequently, the proportion of women and helpless innocent children afflicted and dying with AIDS has increased. Furthermore, the impact of AIDS is not only on children's health but also on their future. The case of Romania might be extreme, but the problems of thousands of orphans left behind by parents dying of AIDS in Uganda and Tanzania is equally disturbing.
3. The issue of quality of life of children and adults sick with AIDS has so far not been adequately addressed. Given that HIV-positives face certain death, this is no reason for those of us who are aware of human rights and public health issues to leave them to die unattended, uncared for, and forgotten. Children dying of AIDS anywhere around the world are innocent victims. They deserve our attention.
4. AIDS is an urgent issue because of its ability to undo gains in infant mortality reduction. It must become a priority agenda in Child Survival and Primary Health Care programs around the world.

#### World Vision's AIDS Activities

The following are examples of what World Vision is doing:

1. AIDS prevention campaigns through information, education, counselling, and in some areas, condom distribution, have targetted both high-risk groups and the general population. This is generally done at the level of the region, district, or province in Zimbabwe, Kenya, Tanzania, Chad, Ghana, and Thailand.
2. World Vision has an ongoing three-year project to assist 30,000 AIDS orphans in three districts of Uganda. With funding from the World Bank, a comprehensive program of assistance to ensure basic necessities--clothing, shelter, education, human rights, and improvement of the local infrastructure--has been embarked upon.
3. In Romania, funds have been committed for the basic necessities and care of orphans dying of AIDS. Personnel and supplies are being provided to make the last days of children dying of AIDS easier and less painful.
4. A research project has been proposed in India to explore issues involving women and how they are affected by AIDS.

#### A Lot More Can Be Done

With these few steps, we in World Vision realize that the problem is bigger than what we can do. We have not even begun to scratch the surface. The biggest difficulty we face is

the dilemma to committing resources to AIDS activities at the expense of other ongoing development work. Doing more AIDS activity would mean reallocating resources from some other development or relief work. We would like to be more involved, and would like to expand activities to more countries. However, like most PVOs, we need additional funding to do so. We also need the partnership of governments, international organizations, communities, and other PVOs to combat the epidemic. Our inability to do more in AIDS prevention could mean the loss of a whole generation of children in some communities and countries.

Thank you very much.

STATEMENT OF  
RICHARD E. BISSELL  
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AGENCY FOR INTERNATIONAL DEVELOPMENT

BEFORE THE

HOUSE SELECT COMMITTEE ON HUNGER  
UNITED STATES HOUSE OF REPRESENTATIVES

June 13, 1991

Thank you Mr. Chairman. I am pleased to have the opportunity to testify before the House Select Committee on Hunger on child survival and AIDS. The concerns of children have been high on the global agenda in the past year and it is our task along with other donors and developing country leaders to keep up the momentum and turn it into concrete progress. The leaders of the world community who gathered together in September 1990 for the World Summit for Children had, at the same time, many achievements of which to be proud and many challenges to face. The United States is committed to the achievement of the goals of the Summit Declaration and A.I.D. will continue its strong and visible programs for children.

The Administrator of the Agency for International Development (A.I.D.) recently announced several initiatives that will provide a focus and emphasis for the A.I.D. program. All the initiatives represent approaches for strengthening the

impact of our development programs. The subject of this hearing, children, is particularly related to one of the Initiatives. Before giving details of our child survival programs, let me briefly explain how the impact on children of the new Family and Development Initiative will stretch beyond the funding directly spent on child survival and health interventions.

#### Family and Development Initiative

The overall goal of the initiative is to improve the well-being of individual family members, the most vulnerable and dependent of whom are children. Traditionally, many development programs have been designed and their impact measured with emphasis either on the individual level or on the national level. We have statistics on individual cases of AIDS, on numbers of babies dying from immunizable diseases and malnutrition, or saved through vaccination and improved feeding practices, and on school enrollment rates for children. However, each single unit of these statistics affects and is affected by relationships to many more people. It is the dynamic of these family relationships and the pattern of their decision-making that may mean the difference between which babies died and which were vaccinated, between which girls are in school and which will never be given the chance to be educated.

Implementation of the initiative will aim at enabling families to make better choices and facilitating their participation in the economic and political life of their countries. When parents have more options and choices and opportunities for greater participation in their communities, their children benefit. Among the strategies are: to increase family income by expanding opportunities for participation of families in the economy; to strengthen the family's capacity to care for and support its members through improved access to health care, nutrition, education, and other social services; to reduce the impact of conditions which place family members at risk and to enable people affected by crisis to regain the social support systems needed to survive.

The results of this and the other initiatives cannot be measured by funding levels or add-ons to our programs. The Family and Development Initiative is both a lens through which to focus on the dynamics of social and economic development and a means through which to strengthen families and their access to resources. It provides a coherent yet inclusive framework for following-up many of the recommendations of the Summit for Children. Thus, the initiative will result in a greater positive impact of our programs on people and in particular on their children. At the same time, we need to continue to support interventions that directly address the specific problems of

infants and children, but with an even greater understanding of the role of the family in the present and future lives of their children.

#### The Child Survival Program

A.I.D.'s child survival program is a highly visible part of the A.I.D. portfolio. Between 1985 and the present A.I.D. has committed over \$1 billion to child survival activities and in FY 1992, A.I.D. plans to obligate about \$211 million for child survival.

The child survival program strategy has focused on 22 emphasis countries and a few selected, affordable interventions with proven impact on the leading causes of death in infants and children. About 40 percent of A.I.D.'s child survival resources have gone into two interventions: diarrheal disease management (principally through oral rehydration therapy) and immunizations against the six diseases of childhood.

#### Immunizations

It is estimated that 2-3 million children are saved every year through immunization against six childhood diseases and that an additional 2-3 million deaths could be prevented if the coverage rates for current vaccines were to reach 80 percent



universally. A.I.D. plans to obligate about \$45 million on immunizations in over 40 countries in FY 1991.

In response to the World Summit for Children A.I.D. has joined DHHS and a number of other donors in the Children's Vaccine Initiative (CVI). The goal of the initiative is to accelerate and facilitate the development of new and improved vaccines which: require fewer doses; can be given earlier in life; can be combined in unique ways, reducing the number of injections or visits required; are more heat stable; are affordable; and, are effective against a range of diseases, such as pneumonia and diarrheal disease, that are not currently targeted by immunization. In FY 1991 A.I.D. will fund the CVI at about \$1 million. In addition, A.I.D. is supporting a broad range of human vaccine research which will contribute directly and indirectly to the CVI totalling an estimated level of \$15 million. In FY 1992, A.I.D. will continue its commitment to the development and improvement of human vaccines, including malaria. In addition, A.I.D. will seek ways to involve vaccine manufacturers to ensure that research results are developed rapidly into affordable vaccine products. As a first step, A.I.D. has requested a study by the Institute of Medicine (cosponsored by DHHS) to address the appropriate role of the public and private sectors in an accelerated vaccine development initiative.

Measles is one of the six target diseases for immunization, and in 1989 measles alone was the primary cause of death in almost half of the vaccine-preventable deaths. The significant impact of measles on childhood death led the A.I.D. Administrator to announce, in August 1990, a new \$50 million program to support control of measles worldwide over the next five years.

#### Oral Rehydration Therapy

A.I.D. is recognized internationally for its leadership in oral rehydration therapy. In 1980, ORT was virtually unknown. Today, over 60 percent of the world's population has access to ORT, and this therapy is now used in one quarter of all diarrhea episodes. It is estimated that 1 million child deaths were averted in 1989 as a result of ORT. In FY 1991, A.I.D. plans to obligate about \$42 million for management and control of diarrheal disease.

#### Vitamin A Deficiency

On the horizon is yet another new weapon in our armory of child survival interventions, resulting from research supported by A.I.D. and other donors. The discovery that Vitamin A deficiency contributes to childhood morbidity and mortality has given us hope that we can help prevent blindness in about 500,000

children, and protect many more against greater susceptibility to infectious diseases and even death. Next fall a multilateral donor group headed by UNICEF, WHO and the Task Force on Child Survival will embark on a new concerted effort to remedy the need for Vitamin A, iodine and iron in deficient populations of children in developing countries. The nutritional quality of the child's diet is an important factor in preventing and treating nutritional disorders. However, research to determine the best way to raise the level of Vitamin A in severely affected children and infants goes on. Ongoing field research in Indonesia and Nepal to examine the epidemiology of Vitamin A deficiency and the impact of supplementation is being supported by A.I.D. In FY 1991 A.I.D. will obligate about \$10 million on Vitamin A.

#### Onchocerciasis

Today 18 million men, women and children in 37 countries of Africa, Latin America and the Middle East are afflicted with onchocerciasis. It is estimated that more than 350,000 people are now blind as a result of the disease. A.I.D. has been and continues to be a primary supporter of the WHO Onchocerciasis Control Program (OCP), which is focused in West Africa. Over the past 5 years, the Agency has committed a total of \$20 million to OCP. In FY 1991 A.I.D. is initiating a three year pilot program to assess the feasibility of using PVOs to strengthen the institutional capacity of national governments in onchocerciasis

endemic countries in West Africa and Latin America in providing cost-effective and sustainable deliveries of ivermectin.

#### Acute Lower Respiratory Infection

Until recently Acute Lower Respiratory Infection (ALRI) has not been a major focus of A.I.D.'s child survival program. However, ALRI causes an estimated 30-35 percent of the 15 million deaths in children 0 to 5 years old in the world today. The rapidly rising interest in ALRI stems from two causes: ALRIs are becoming the first cause of childhood death in many countries as ORT reduces diarrheal deaths, and new technologies have become available allowing local health workers to diagnose and treat many ALRIs.

#### Food and Nutrition

Under the new PL 480 program, A.I.D. is given sole authority to manage Title II and III, and will use that authority to focus more food aid resources to combat hunger and malnutrition and to improve the food security of the poorest people in "food deficit" countries. A.I.D. is working on new guidance to implement new elements of these Titles. Title III food aid will be directed to a limited number of the most food insecure countries, defined in terms of criteria such as per capita income, caloric intake, child mortality, food productive

capacity and foreign exchange earnings. Consistent with the authority to focus on food security, A.I.D. will use local currency proceeds to alleviate hunger and improve nutrition, support family planning and maternal/child health and other child survival strategies; but, will broaden their use to include income and employment generating programs to increase poor people's access to available food supplies. Title II remains focused on emergency as well as humanitarian and developmental needs of hungry, malnourished people. In addition \$10 million will be granted to PVOs to cover the administrative, management, personnel and internal transport and distribution costs they incur in implementing programs under Title II.

#### Breastfeeding

The importance of breastfeeding to infant nutrition and health are documented. Non-breastfed infants have three times more diarrhea and 14 times more diarrheal deaths, five times more ALRI and three times more ALRI deaths than breastfed babies. In 1990, A.I.D. strengthened its breastfeeding promotion activities through the Agency's Breastfeeding for Child Survival Strategy. In the coming year A.I.D. will launch a major new initiative dedicated to breastfeeding to include new activities and expansion of ongoing activities.

### Family Planning

The affect of birth spacing and family size on the health and survival of children and their mothers is documented.

A.I.D.'s family planning program continues to make a significant contribution to the survival prospects and health status of children and their mothers through the provision of voluntary family planning information, education and services in 80 countries. In FY 1991 A.I.D. plans to obligate about \$350 million for population, about 80 percent of which will support voluntary family planning services.

### Basic Education

Included in the recommendations emerging from the World Summit for Children and the World Conference on Education for All was the importance of basic education. A.I.D. continues to give priority to basic education and in FY 1991 plans to obligate about \$70 million in development assistance support for primary and secondary education reform, expansion and qualitative improvement, with a particular concern for the education needs of girls and women. There is increasing international attention to early childhood care and development issues. Programs in this area enhance and reinforce both the basic education and the infant and child survival interventions. A.I.D. is a leader in the international Consultative Group on Early Childhood Care and

Development, a consortium of other donors, foundations, NGOs and PVOs, researchers and key leaders of early childhood programs in developing countries.

#### AIDS

Two months ago, the world community expected that by the end of this decade more than 25 million people would be infected with the human immunodeficiency virus (HIV), the virus that causes AIDS. Recently, however, the World Health Organization's Global Programme on AIDS (WHO/GPA) revised this estimate, and now predicts that by the year 2000 a total of 40 million people will have been infected. What remains unchanged is the large proportion of infections -- two-thirds of the world's total -- that will take place in the developing world.

Over the next few years, many hard-won development gains will be lost as health systems are further strained and millions of people in their most productive years develop AIDS, become ill, and die. Future generations will also be threatened as the deadly legacy of HIV is passed from husbands to their wives, and from mothers to their children. Many children will die, but more will survive and grow up without the parents lost to AIDS.

A.I.D. has been working since 1986 to slow the spread of HIV and to monitor its impact on development. We do so through



our support to WHO/GPA and through our own bilateral assistance programs.

-Over the past five years, A.I.D. has committed almost \$69 million in support of WHO/GPA's global mobilization and coordination efforts. The WHO/GPA has limited capacity to implement national programs. Thus, the challenges in mounting a successful international response to AIDS are dependent upon bilateral donors and their cooperating agencies.

-Since 1987, A.I.D. has obligated an additional \$91 million in bilateral assistance to complement WHO's leadership with resources to develop and implement effective prevention programs at the country level.

-In 1991, A.I.D. will program \$23 million for WHO/GPA and \$56.8 million for bilateral assistance to developing-country AIDS prevention programs.

A.I.D.'s number one program priority in response to the HIV/AIDS pandemic is prevention. Because the primary mode of transmission is sexual, many of the 650 AIDS initiatives supported by A.I.D. emphasize prevention of sexual transmission through behavior change. Programs aimed at prevention of sexual transmission can help limit the number of mothers who are HIV-

infected and are also our best means of preventing transmission from mother to child. Recognizing that sexual behavior change requires the commitment and resources of the communities most affected, A.I.D. relies heavily on private voluntary organizations, non-governmental organizations and other community-oriented institutions to carry out culturally-appropriate campaigns to encourage people to change the behaviors that place them at risk of infection.

We have seen signs of success in the communities reached through our efforts. Counseling and support for reducing the number of sexual partners, condom promotion and distribution, and improved diagnosis and treatment of the other sexually-transmitted diseases that facilitate HIV transmission are among the most effective AIDS prevention strategies tried to date. To have an impact, however, discrete activities must be consolidated and expanded into comprehensive prevention programs that reach many more people with information and realistic alternatives to the sexual practices jeopardizing their health. The Agency's HIV/AIDS Prevention and Control Program has been redesigned based on a better understanding of how to prevent the spread of AIDS. Beginning in Fiscal Year 1992, A.I.D. will focus AIDS resources on a limited number of priority countries that are being selected to ensure that our efforts will successfully limit the impact of AIDS on their socio-economic development. Our goal in these ten-to-fifteen priority countries is to build the extensive network

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of AIDS prevention services needed to effectively halve the epidemic.

#### Orphans and Displaced Children

The AIDS pandemic has brought attention to the increasing number of orphaned children, particularly where heterosexual transmission of HIV is prevalent. While resources for controlling AIDS are most effectively geared toward prevention among adults, our investment in the future of the developing world necessitates that we also respond to the needs of the millions of children who are orphaned by AIDS. As devastating as AIDS is, it is only one of many reasons children in the developing world are separated -- permanently or temporarily -- from their families. Even more children are displaced by armed conflict, famine and other disasters, deteriorating economic conditions, and other circumstances that accompany endemic poverty.

A.I.D. has supported help for orphans and displaced children for the last three years through emergency assistance and through development programs. The principle behind A.I.D. assistance for orphans and displaced children is whenever possible to strive to place children with families in a community setting rather than in institutions. Beginning in FY 1991, A.I.D. will mount a coordinated program using the \$5 million

earmarked by Congress for orphans and displaced children. An additional \$500,000 will be committed by OFDA for programs in Ethiopia, Liberia and Angola. Finally, another \$1.5 million will be committed to the consortium of private voluntary organizations working with orphans in Romania. Cambodia and Guatemala may also receive assistance.

Visit to Africa by Secretary Sullivan and Administrator Roskens

As a result of the 1990 Summit for Children, President Bush asked the Administrator of A.I.D. and the Secretary of Health and Human Services to visit Africa to assess two global problems, AIDS and child survival, in the context of seven specific countries. Secretary Sullivan and Administrator Roskens carried out this assessment in January 1991. Among their observations and recommendations are:

-That strong primary health care systems must underlie targeted child survival interventions, and that improving child survival and health status in Africa must be coupled with economic development;

-That AIDS is a devastating social problem that has consequences beyond the health sector in many African countries and that additional research and intervention

efforts to promote behavioral change are needed to break the HIV transmission chain.

-That high fertility poses a major threat to child survival and a barrier to economic growth in Africa and that support for voluntary family planning services in Africa should be increased.

-That in the fight to save children, health information systems and epidemiological data are important tools and that we must help to strengthen the indigenous African capacity in these areas.

In conclusion, the Africa assessment trip validated the appropriateness of A.I.D.'s approaches to the problems of children and to the AIDS epidemic. There remains, however, much to be done in Africa and throughout the rest of the developing world, and A.I.D. will not let its commitment to finding solutions to these problems waver.

**TESTIMONY**

BY

**DR. MICHAEL MERSON**

**DIRECTOR, GLOBAL PROGRAMME ON AIDS**

**WORLD HEALTH ORGANIZATION**

**BEFORE**

**U.S. HOUSE OF REPRESENTATIVES**

**SELECT COMMITTEE ON HUNGER**

**"AIDS: THREAT TO THE DEVELOPING WORLD'S CHILDREN"**

**13 JUNE 1991**

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## CHILD SURVIVAL AND AIDS

Over the past several decades, significant progress has been achieved by child survival programmes. These successes led to the convening of a World Summit for Children in late 1990 to provide heads of states and ministries of health with an opportunity to make a commitment, at the highest political level to improve child health throughout the world. Foremost among the major goals for child survival, development and protection developed during the World Summit was the reduction by the year 2000 of infant and under-5 child mortality rates by one third or to 50 and 70 per 1000 live births respectively, whichever is less. Unfortunately, the emergence of AIDS during the 1980s as a major and increasing cause of disease and death in infants and children has the potential to negate most, if not all, of the advances made so far in child survival and prevent further advances in the near future. I would like to summarize the current and future impact of the HIV/AIDS pandemic in children, focusing especially in sub-Saharan Africa where the pandemic as of the early 1990s is most intense.

During the latter half of the 1980s, heterosexual transmission has increasingly become the primary mode of HIV transmission globally. In sub-Saharan Africa, HIV transmission has always been predominantly heterosexual, but in developed countries and in most of Latin America during the early 1980s, males were predominantly infected via sex with other men, and by sharing drug injecting equipment. As of mid-1991, the male to female ratio of new HIV infections (incidence) is increasingly drawing closer to one to one in all regions of the world, and WHO estimates that by the mid-1990s, the male to female ratio of new HIV infections will on a global basis

be almost equal. Since one in three to four infants born to HIV-infected women are HIV-infected, the increasing numbers of HIV-infected females, most of whom are in the child-bearing age group, brings along with it an increasing number of paediatric AIDS cases. To put it simply, the more women who are infected, the more children who will be infected. And if they are not infected they are likely to be orphaned because their parents will die of AIDS.

As of mid-1991, WHO estimates that from 5-6 million men have been infected with HIV, 1.5 million of whom have developed and/or have died from AIDS. The corresponding figures for women are 3-4 million HIV infections, of whom 1 million have developed AIDS and/or have died from AIDS. These 3-4 million HIV-infected women have borne 1 million HIV-infected children, over a half million of whom have developed AIDS or have died. The higher proportion of disease and death in infected children as compared to adults is related to their much faster progression to AIDS once infected. About four out of five children born HIV-infected develop AIDS by age 5. In addition to the HIV-infected children, almost 2 million uninfected children have been born to HIV-infected women and they constitute the growing numbers of potential AIDS orphans. To date about ninety percent of HIV-infected children and AIDS orphans have been in sub-Saharan Africa.

Estimates of disease specific mortality in children have been used to compare AIDS with other leading causes of death in children under 5 in sub-Saharan African countries with high HIV-prevalence. From these initial estimates it is apparent that in these countries before the mid-1990s, AIDS will cause more deaths in children than



either malaria or measles.

Long-term projections of the future numbers of HIV-infected women and the numbers of paediatric AIDS and AIDS orphans are difficult to make because many of the important biological and behavioural variables which will determine the future course of this pandemic are not well delineated. However, all of the current epidemiological data and all of the available HIV/AIDS models project substantial increases in the total numbers of men, women, and children who will become infected, progress to AIDS and die. Such long-term projections should not be accepted as precise projections, but should be looked upon as initial, though reasonable, attempts to grossly quantify the future impact of this pandemic.

By the year 2000, WHO's most recent projections are that there may be a cumulative total of 25-30 million HIV-infected adults, and from 5-10 million infected children. In addition, 10-15 million children  $\leq 15$  years of age will have been orphaned as a result of the deaths of their mothers due to AIDS.

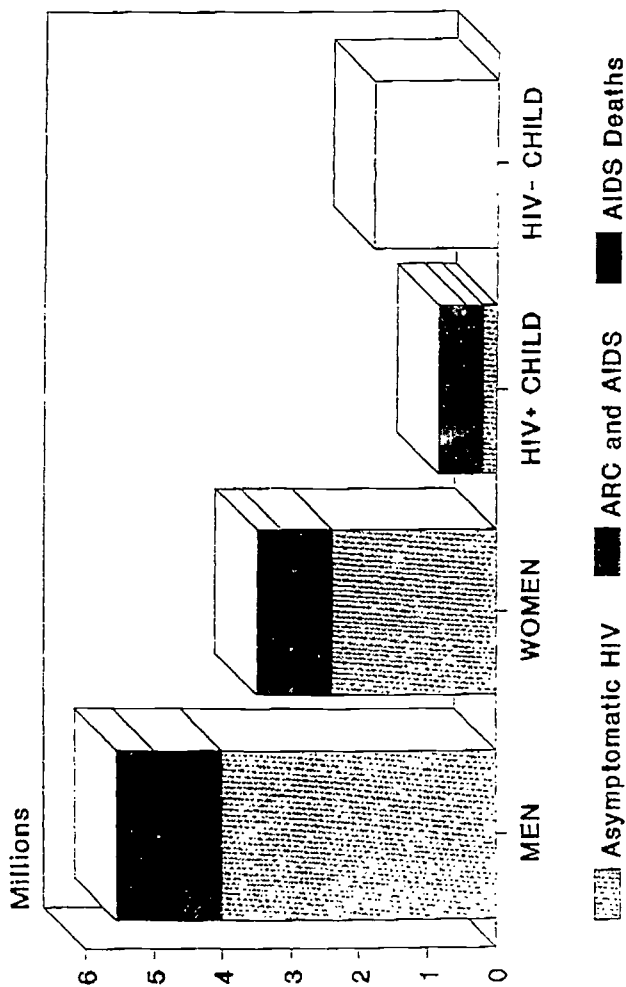
Using a demographic projection model developed by the World Bank, the impact of HIV/AIDS on infant and child mortality up to the year 2010 in a hypothetical sub-Saharan African country, with a high HIV prevalence as of the early 1990s has been projected up to the year 2010. Infant mortality rates in this country in absence of AIDS would have been expected to have dropped from 100 to 1000 live births in 1990 to 60 per 1000 live births in 2010, but instead remains almost unchanged by 2010 when it is projected to be 105 per 1000 live births. Similarly as a result of AIDS, no decline is projected for the probability of dying by age five; it is expected to

increase from 180 per 1000 live births between 1990 and 2010, whereas without AIDS, it was expected to decline by about 50% from 170 per 1000 live births in 1985 to 90 per 1000 live births in 2010. these numbers do not take into account the well-known fact that children who are orphaned at an early age have a shorter life expectancy than normal.

I have spoken mostly about the impact of paediatric AIDS in Africa. All the evidence before us today is that unless there is the highest commitment given now to AIDS prevention and control in Asia and Latin America, a demographic picture similar to that occurring in Africa will be seen in these parts of the world some 5-10 years later.

Available data on the current prevalence of HIV-infected women and children are limited; accelerated efforts are needed to collect reliable data on the natural history of HIV infections in women and children. Current estimates need to be periodically revised as additional data are gathered. Nevertheless, whatever the actual numbers are and will be, the HIV/AIDS problem in women and children will doubtless become one of the major challenges to public health, health care, and social support systems throughout the world. Child survival programmes will need to actively address the potential impact of the HIV/AIDS pandemic if any significant reductions in infant and child mortality rates are to be achieved by the end of this century and the early decades of the next century.

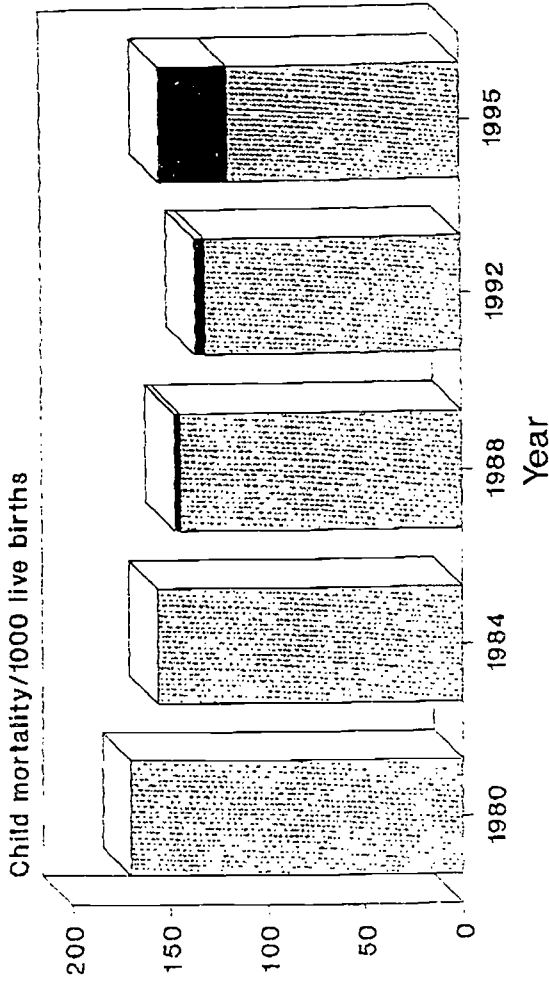
# CUMULATIVE GLOBAL HIV/AIDS ESTIMATES JUNE 1991



WHO/GPA/SFI/4/91/FGLOEST

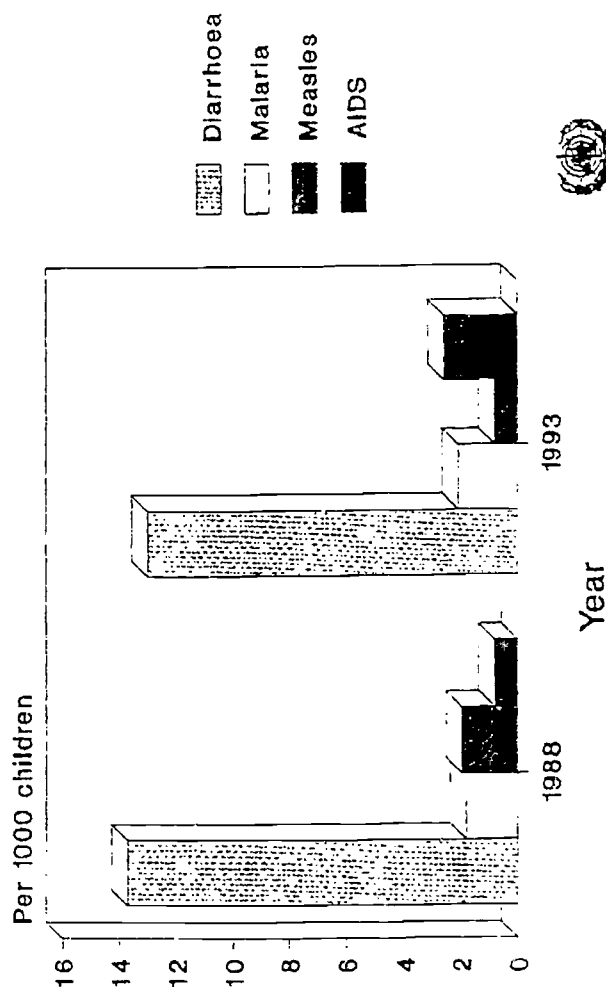


# PROJECTED CHILD MORTALITY FROM AIDS IN A SUB-SAHARAN AFRICAN COUNTRY



WHO/QPA/RES/SFI/4/81/SS18

# ESTIMATED/PROJECTED MORTALITY RATES IN CHILDREN UNDER 5 YEARS OF AGE IN A SUB-SAHARAN AFRICAN COUNTRY

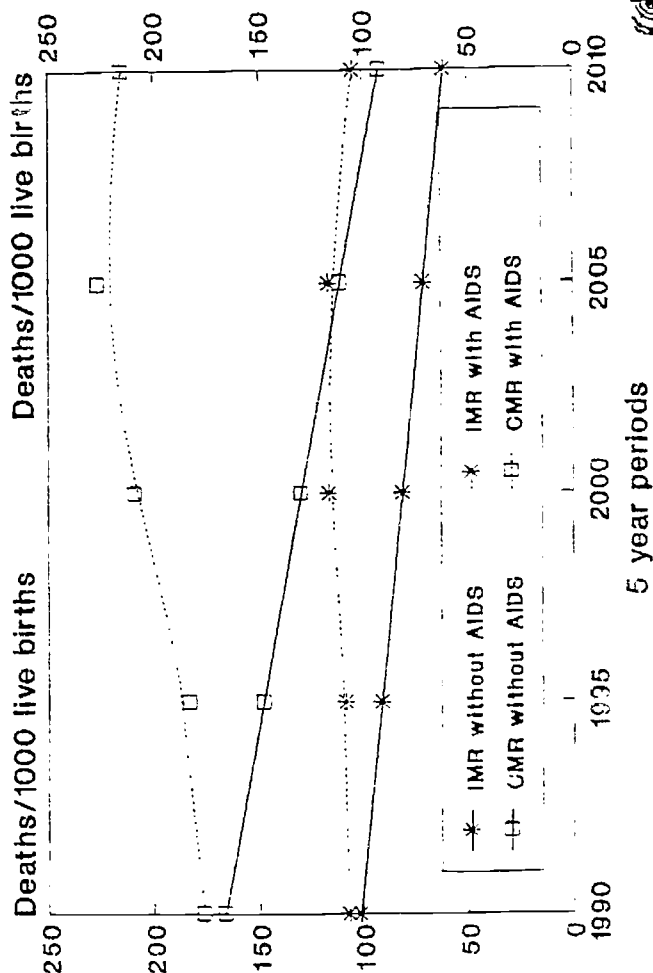


WHO/GPA/RES/8F1/G/91/GS26

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89

# PROJECTED INFANT AND CHILD MORTALITY RATES IN A SUB-SAHARAN AFRICAN COUNTRY



WHO/GPA/RE8/SF1/G/91-20MC



80

80



## PEDIATRIC AIDS JEOPARDIZING GAINS IN CHILD SURVIVAL

# from AIO's Child Survival Report

■ The number of infants born with the human immunodeficiency virus (HIV) is projected by the World Health Organization to increase more than tenfold in the 1990s - from a worldwide total of 700,000 in 1990 to an estimated 8 to 10 million by the year 2000. The vast majority of those HIV-infected infants will soon develop AIDS (acquired immunodeficiency syndrome); nearly half will die before they are two years old, and 60 percent will die before they are five. In some developing countries, HIV/AIDS may become the leading killer of children during the 1990s.

■ The projected increase in pediatric HIV/AIDS cases is based on several factors: continued increases in the number of HIV-infected adults (currently 8 to 10 million), increased heterosexual transmission of HIV infection, and the fact that over 95 percent of HIV-infected adults are aged 20 to 49, which means that many women are becoming infected during their prime childbearing years.

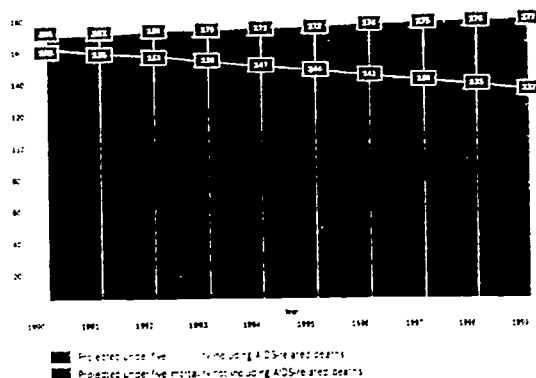
■ Children will bear an increasing share of HIV/AIDS morbidity and mortality as the pandemic continues. An estimated 2 million women of childbearing age were HIV-infected in 1990. Based on studies of HIV-infected women around the world, 25 to 40 percent of infants born to HIV-infected mothers will be HIV-infected, and the risk of perinatal transmission (mother to child) increases with the progress of the mother's disease.

■ Over 80 percent of HIV infections occur in the three regions of the developing world: Africa (53 percent), Latin America (17 percent), Asia, Oceania, and Europe (13 percent). Within those regions, the devastating burden of pediatric HIV/AIDS is falling most heavily in sub-Saharan Africa and the Caribbean.

## AIDS AND CHILD MORTALITY

HIV/AIDS is expected to increase child mortality by 20 to 43 percent in 10 African countries.

Source: Centers for Disease Control, *Fig. 10-10, p. 10-10*



■ In sub-Saharan Africa in particular, AIDS threatens to reverse the hard won gains made during the 1980s in promoting child health and survival.

The World Health Organization estimates that 8 million adults in sub-Saharan Africa were HIV-infected as of 1990, and that about half of these infected were women. Moreover, 90 percent of all perinatal transmission of HIV is estimated to occur in sub-Saharan Africa. The significance of these numbers in terms of increased child mortality is underscored by Figure 22, which shows the projected annual child mortality rate during the 1990s - with and without AIDS - in 10 countries of

East and Central Africa. These estimates projected an increase in child mortality of 20 to 43 percent. In other words, up to 1.7 million additional child deaths may occur in those 10 countries alone in the 1990s due to HIV/AIDS.

■ HIV infection takes its toll quickly on children. At about six months of age, the child begins to suffer repeated bouts of diarrhea, fever, and respiratory infections. In developing countries, these illnesses, and the growth faltering that accompanies them, are similar to illnesses children commonly experience, and thus they often are not recognized as symptoms of HIV/AIDS. Moreover, due to lack of knowledge of how HIV infection is acquired and the limited availability

of HIV blood-screening tests, many women at risk in developing countries are unaware of their HIV status nor that of their child. Even if a child in a developing country is correctly diagnosed as being HIV infected, little more can be done than to treat the symptoms.

**1. AIDS also threatens the well-being and survival of children who are not HIV infected.** The impaired health and nutritional status of HIV-infected mothers can lead to premature birth and low birth weight of noninfected, as well as infected, infants. In addition, sickness eventually limits the ability of HIV-infected mothers to care for their children, and young children are often left in the care of older siblings. When wage earners are infected with HIV, the resources available for feeding and taking care of children's other needs can become strained.

■ Another significant aspect of the AIDS pandemic is the number of children orphaned by AIDS. The World Health Organization estimates that 17 million noninfected children under age 16 will lose one or both parents to AIDS in the 1990s. Studies indicate that in East and Central Africa alone, AIDS-related deaths among women of reproductive age in the 1990s will leave between 2 and 3 million children motherless. Looking beyond the 1990s, USAID has projected that by the year 2015 AIDS will have created some 16 million orphans in sub-Saharan Africa alone.

■ Families and public and private child care organizations are already straining under the burden of caring for AIDS orphans. Older members of extended families are caring for more children while

faced with the loss of the productive labor and emotional support of the adults who fall victim to AIDS. Orphanages are being asked to take in more children than they can care for, and adoption agencies are finding it difficult to place children of AIDS parents, even if the children are not infected themselves. In urban areas, some of the older AIDS orphans end up on their own and trying to earn a living on the streets, where their life-style can put them at risk of becoming HIV infected.

■ Given the grave implications of the rapid increases in HIV/AIDS, most program efforts are directed at preventing the spread of HIV among sexually active groups through fundamental changes in behavior and teaching children and young adults not yet sexually active about the causes and prevention of AIDS. Through information, education and communication, programs are working to slow the spread of HIV/AIDS among young women as the first step in eliminating AIDS as a threat to child survival. For sexually active women, each contact with the health care system, whether for her own or her child's health, provides an opportunity to save a life through AIDS education, including the correct use of condoms to prevent transmission of HIV infection.

■ Many developing countries are struggling to deal with the AIDS crisis at the same time that they are trying to maintain or increase basic health services and make structural economic adjustments to cope with the results of years of inflation and recession. The challenge for the international health community is to find ways to maintain the momentum of the global effort to provide basic health care for all children while helping to prevent the spread of HIV infection and caring for those with HIV/AIDS.

## USAID'S ROLE

**A**n important step toward preventing AIDS in children is informing reproductive-aged teenagers and women about HIV/AIDS prevention and promoting behavioral change to reduce their risk of infection. In addition to its major support for the WHO Global Program on AIDS, USAID supports communication programs, counseling services, prevention and treatment of sexually transmitted diseases, condom distribution, and blood screening to prevent the spread of HIV/AIDS in over 65 countries, 24 of which have projects specifically targeted toward women of reproductive age.

In 1990, AIDSCOM developed communication programs that used radio, television, films, and brochures to reach women of reproductive age in 11 countries with HIV/AIDS prevention information. In Zaire, the HIV/AIDS Prevention in Africa project used mass media messages to reach young and prospective parents. With assistance from AIDSTECH, prevention education, treatment of sexually transmitted diseases, blood screening, and condom distribution were carried out in eight countries in 1990.

HIV/AIDS prevention activities are being integrated into child survival, health, and family planning projects in host countries. As a guide to the integration of AIDS and child survival programs, AIDSTECH is producing reports on the experience of the programs in Senegal and Ghana. In Senegal, mothers seeking child survival or family planning services at clinics are routinely counseled in HIV/AIDS prevention. In Kenya, World Vision Relief and Development teaches traditional birth attendants about the importance of using sterile or disposable equipment while delivering babies in order to prevent the spread of HIV.

Research in maternal and pediatric AIDS is being conducted by the National Institutes of Health and the Centers for Disease Control with support from USAID. HIV seropositivity among pregnant women and perinatal transmission of HIV are being studied in Lusaka, Zambia, and in Gite Soleil, Haiti.





### AIDS in women

The dramatic rise of AIDS as a family tragedy is the HIV-infected women. Of the 6.8 million HIV-infected people in the world, two million are women of childbearing age.

The vast majority of women with HIV and AIDS are in the developing world where the family and infrastructural resources to deal with the destructive force of family life are weakened.

A woman with AIDS not only has a harder time sustaining a family, it has to endure the stigma to be the mother of a child with AIDS. She is at 27 to 40% chance of passing on HIV to one of the women of a birth.

More than 1.5 million HIV-infected women live in countries between 100 and 100% of women who are infected. UNICEF estimates that each woman with AIDS will leave behind an average of six children. Since she is the key provider of food, clothing, and household services for all her children, mothers die and leave behind social and economic consequences for her children and for her husband and her survival.

### Impact on children

Children of mothers with AIDS have a 25% chance of dying before age one, at 10% chance of dying before age five (WHO estimates). Although it is difficult to make a precise diagnosis of HIV infection in the first few months of life, children born to HIV-infected mothers consistently show higher death rates than those born to uninfected mothers.

At a recent symposium, the AIDS infection is believed to have a negative impact on children's growth and development. The children have a substantial problem with chronic diarrhea, diarrhoeal disease, and acute respiratory infection, but the impact of infection on the child's growth and development is not yet clear.

### The global toll of AIDS in women

Two million women of childbearing age are now HIV-infected. Most are mothers who would not have been in exceptional family circumstances, meeting social norms and expectations. Among the poor, and drug users, the rate of infection is as high as 20%.

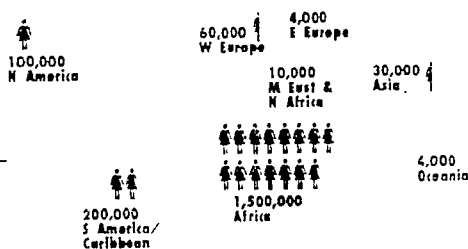
#### Proportion of women who are HIV-infected

There are 1,000 million women in the world aged between 15 and 49 years of whom an average of 10% per 100,000 are HIV-infected. The proportion of women who are HIV-infected varies dramatically between regions.

#### Number of HIV-infected women per 100,000

141	North America
20	South America, Caribbean
70	Western Europe
5	Eastern Europe
27	North Africa, Middle East
112	Sub-Saharan Africa
3	Asia
70	Oceania

#### Estimated numbers of HIV-infected women

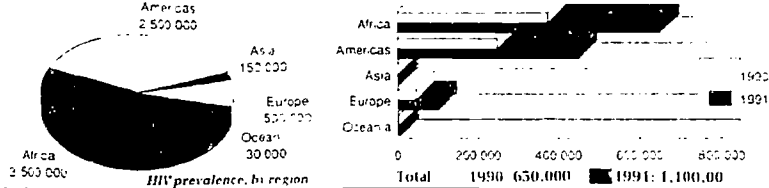


Source: WHO

unicef

### HIV and the growing AIDS caseload

6.5 million people throughout the world are now infected with HIV, half in Africa, one third in the Americas, the rest elsewhere. WHO estimate that ten times as many people have contracted HIV as those suffering from AIDS, which can take over 10 years to develop.



Source: WHO, *Global AIDS Epidemic, May 1990*

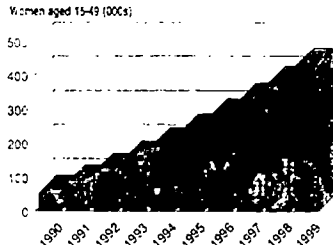
### Increasing devastation on families hit by AIDS

In ten Central and East African countries, recent gains in child survival will almost certainly be wiped out by the impending tragedy of deaths in women and the under-fives during the 1990s.



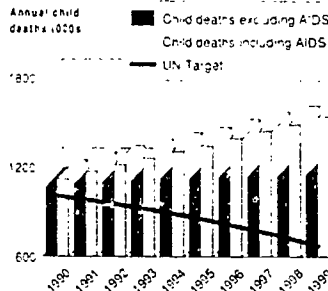
### Projected number of AIDS orphans

During the 1990s, up to 5.5 million children under 15 will lose their mothers to AIDS.



### Projected AIDS deaths in children under five

During the 1990s, up to 2.7 million children will die from AIDS.



Source: *World Social Science and Medicine Vol. 11, No. 6, 1990*

unicef

ISBN 0-16-036853-7

